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Vol. XXXVII.] [Part I.

JOURNAL OF THE STATISTICAL SOCIETY,

MARCH, 1874.

The Recent Progress *of* National Debts.

By R. Dudley Baxter, M.A.

[Read before the Statistical Society, 20th January, 1874.]

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I.—*Introduction. Recent Progress of National Debts.*

I bring before you one of the most important subjects of National Statistics—National Debts. They have been incurred by almost every civilised nation, and have received during the last quarter of a century an immense extension and development. Their consequences upon Taxation and Commerce and the prosperity of nations are very serious, and will be felt for many generations. It is now twelve years since they were discussed before this Society by one of its most eminent members, Professor Leone Levi. Even these twelve years have been a long interval in the history of national indebtedness. No institution has grown faster, or passed in different nations through so many stages of progress, or taught so many lessons of dearly bought experience. Let us endeavour to trace its recent progress, and some of the lessons which that progress affords, respecting prudent investment and national duty.

A new series of national debts dates from 1848. All before that belonged to the old régime. They were contracted for the most part in the days of sailing ships, and post roads, and semaphores, and were the result of that first great outburst of Democracy, which swept over America and Europe a little less than a century ago; which in Europe was merged into military despotism, and finally extinguished by the resuscitated Monarchies. The new Debts began with the second struggle of Democracy and Military Empire, in an era of steamships and railroads and electric telegraphs, and accumulations of wealth; which spread before Governments facilities and temptations previously unknown, to tread that broad and easy downward road, whose consequences are described in the old distich—

> "He that goes a borrowing
> Goes a sorrowing."

I was anxious to have given a table of the annual additions to National Debts from 1848 to the present time, but have found it impracticable to obtain reliable figures. Almost all statistics of National Debts are approximations, and not accurate totals. England and the United States furnish elaborate annual or even monthly statements of indebtedness; but other nations are much more careless and vague, and leave us to gather information as best we can from all sorts of unauthorised sources, in which the amounts of external Loans taken and paid up, the Floating Debt, the Home Debt, the Currency Debt, and the Guarantees of Railways or other public works, are often involved in confusion and obscurity. We can only give figures which afford an approximate idea of the progress of National borrowing.

The total National Debts were—

	£
In 1848 about	1,700,000,000
,, '73 ,,	4,680,000,000
Thus the increase in twenty-five years was	2,980,000,000

an increase of nearly double the original debts.

But the rate of increase was very different before and after 1860.

Up to 1860, national borrowing was chiefly in Europe. There had been—

The Revolutions of 1848,
The Crimean War of 1854,
The French-Austrian War of 1859,

which caused most of the borrowing. But the total loans scarcely averaged—

	£
From 1848 to 1854	20,000,000 a-year.
,, '55 ,, '60	50,000,000 ,,

After 1860 there were the following great wars—

American Civil War, 1861-65,
Prussian-Austrian War, 1866,
French-German War, 1870,

leading to immense loans in America and Europe. During these years an epidemic of borrowing set in all over the globe. Capital accumulated so rapidly, and capitalists were so ready and pressing with their loans, that all the States of the civilised and uncivilised world rushed to borrow them. Russia, Austria, and France contracted new debts without intermission. The South European States, Portugal, Spain, Italy, and Turkey largely increased their indebtedness. Egypt began to imitate Turkey. The United States whipped creation in the vastness of their five years' borrowing. Mexico and all the Spanish and Portuguese States of South America flocked eagerly into the money market. Australia and New Zealand borrowed largely for public works. Some of these States borrowed for war, others for railways—but all borrowed.

The average increase from national debts from 1861 to 1873, has been 200,000,000*l.* a-year.

If this average is kept up for twenty-five years more, our total national debts will be again doubled, and will reach before the end of the century, in the year 1900, 10,000,000,000*l.* The annual charge of such a debt at 5 per cent. will be 500,000,000*l.*, an amount equal to the present aggregate public revenues of all the States of Europe and North America.

Such are the possibilities of the future progress of national debts. Are they probabilities? Shall we see national debts augment in an ever increasing ratio, like population, or the consumption of coal? Or are there reasons to think that borrowing will progress in a diminished ratio, from the increase of national prudence and the decrease of national credit? Let us examine more in detail the Debts and Credit of the various States, to ascertain their different burdens, and means of meeting them.

II.—*Classification of National Debts.*

The beginnings of national debts are almost always the same. An extraordinary expenditure is necessary, usually for warlike purposes, but sometimes for works of peace, which would press too hardly upon current revenue; and a loan is resorted to. The emergency continues through several years, necessitating further loans, negotiated on harder terms. It comes at last to an end, but leaves the national expenses permanently and considerably increased, partly by the interest of the debt, and partly by the inflated scale of expenditure which borrowed money constantly produces, both in the public service and in the nation. A strong and growing State will then impose sufficient taxation to prevent a continuance of borrowing, and even to provide surpluses for debt reduction. The credit of the nation rises, and the State is able to keep down the interest to the lowest rate current in the country, and bear its burden of debt on the easiest practicable terms, even if the debt itself is heavy, and should lead, as it did in the last century in the case of Holland, to loss of commerce and of political power.

But a declining or weakly governed State goes on with deficits and borrowing, to meet ordinary expenditure; and becomes continually more embarrassed in finances and compelled to borrow at higher rates. When the taxation becomes heavier than the nation can bear, credit comes to an end; perhaps political convulsion ensues; and the national debt vanishes in a national insolvency.

Hence there are four classes of indebted States, that should be carefully distinguished.

1. *The Economical States*, whose debts grow less in proportion to their resources.

2. *The Vigorous Borrowing States*, that borrow freely but not beyond their resources.

3. *The Over-borrowing and Declining States*, whose debts are heavy and continually increase more rapidly than their resources.

4. *The Defaulting* or *Insolvent States.*

I have prepared the tables that follow, classifying the different States according to their credit in the money markets of the world, as measured by the rate of interest which their stock can be purchased to pay; and also showing the increase in their debts since 1848. The classification by rate of interest on the price of the day appears to me more useful than any other for practical purposes of investment, because it embodies in a rough and ready way, the judgment of the monied world upon each security. It enables investors to see at a glance the rate of interest they want, and to form an idea of the risk they are running.

One usual test of National Debts is the amount of annual charge per head of population, which varies, for instance, from 8*d.* per head in British India, to 15*s.* 6*d.* in the United Kingdom. But this gives very little real information about the pressure or safety of the debt, because 8*d.* per head in India may be a heavier burden on the resources of the inhabitants than 15*s.* 6*d.* in England.

Another ordinary test is the ratio of the annual charge to the annual public revenue. But this is often misleading. For instance, the annual charge of the French debt is now about 32,000,000*l.*, which is nearly one-third of her expected revenue of 100,000,000*l.* This looks a better proportion than the English Debt charge of 24,000,000*l.* out of a revenue of 70,000,000*l.*; whereas really it is very much worse. It also looks a better proportion than 32,000,000*l.* out of 70,000,000*l.*, which would be the proportion if France had reduced her expenditure to 70,000,000*l.*, which of course is a fallacy.

No reliable information can be gained from either of the above tests without taking into consideration many other circumstances. I therefore prefer the tables of interest on price which you see before you. They fall naturally into four divisions, according to the rates of interest which the stock of the different States can be bought to pay.

1. *States of Low Interest*, viz., 3 and 4 per cent.
2. *States of Moderate Interest*, viz., 5 to 6½ per cent.
3. *States of High Interest*, viz., 6½ to 10 per cent.
4. *States of Excessive Interest*, viz., above 10 per cent.

The first and second of these classes correspond with the first two classes before mentioned, but the third and fourth are not necessarily declining or defaulting.

TABLE I.—*Low Interest.*

Countries.	Debt.		Interest per Cent. on Market Price.
	1848.	1873.	
3 *per Cent. States*—	£	£	
United Kingdom	820,000,000	785,000,000	3¼
Denmark	11,225,000	12,747,000*	3¼
	831,225,000	797,747,000	—
4 *per Cent. States*—			
Holland	102,460,000	80,500,000*	4·0
Belgium	17,500,000	36,000,000*	4·0
German States	40,000,000	146,000,000*	4·0
India	50,000,000	130,000,000*	4·2
Canada	6,600,000	22,800,000*	4·6
Australasia (Victoria, New South Wales, Queensland, South Australia, Tasmania, New Zealand.)	—	39,400,000*	4·6
Sweden	600,000	6,700,000*	4·9
	217,160,000	461,400,000	—

These are the capitalist and economical States, that pay off debt or borrow very moderately.

TABLE II.—*Moderate Interest.*

Countries.	Debt.		Interest per Cent. on Market Price.
	1848.	1873.	
5 *to* 6½ *per Cent. States*—	£	£	
Morocco	—	500,000*	5·0
United States	48,000,000	448,000,000 78,000,000*	5·1
Brazil	7,000,000	63,000,000*	5·1
Russia	100,000,000	345,000,000*	5·3
France	182,000,000	900,000,000	5·3
Natal, Cape of Good Hope, Mauritius and Ceylon	—	4,020,000*	5·1
Chili	1,750,000	10,300,000*	5·7
Argentine Republic	2,150,000	16,300,000*	6·3
	340,900,000	1,865,120,000	—

* For note see next page.

These are the borrowing States, with good resources, whose credit is good in the money market.

TABLE III.—*High Interest.*

Countries.	Debt.		Interest per Cent. on Market Price.
	1848.	1868.	
6½ and 7 per Cent. States—	£	£	
Portugal	17,000,000	69,200,000*	6·7
Japan	—	8,645,000*	6·8
Hungary	—	17,570,000*	7·0
Austria	125,000,000	320,000,000*	7·5
Columbia	—	9,460,000*	7·4
Roumania	—	12,900,000*	7·8
	142,000,000	437,775,000	—
8 to 10 per Cent. States—			
Uruguay	—	8,000,000*	8·0
Italy	30,000,000	365,000,000*	8·2
Cuba	550,000	1,790,000*	8·2
Egypt	—	75,000,000*	9·0
Peru	2,500,000	38,000,000*	9·7
Ecuador	2,800,000	3,270,000‡	10·0
Turkey	—	129,000,000*	10·7
	35,850,000	620,060,000	—

These are the States whose expenditure exceeds their income, or whose other circumstances show some risk to lenders.

TABLE IV.—*Excessive Interest.*†

Countries.	Debt.		Interest per Cent. on Market Price.
	1848.	1868.	
	£	£	
Guatemala	—	1,200,000	14·5
Bolivia	—	1,700,000*	15·0
Spain	113,000,000	373,000,000‡	16·5
Mexico	10,000,000	79,000,000‡	17·5
Costa Rica	—	3,400,000	22·0
Paraguay	—	3,000,000	25·0
Venezuela	—	16,700,000‡	25·0
San Domingo	—	750,000‡	—
Greece	10,000,000	12,000,000‡	33·0
Honduras	—	6,000,000‡	66·0
	133,000,000	496,750,000	—

---

* Part of debt for railways or public works. The total debts for these purposes are estimated at about 500,000,000*l.*

† I must acknowledge my indebtedness to the admirable tables of the "Economist" in its Investor's Monthly Manual, for the latest amounts of the debts and their quotations at the end of 1873; and also to Mr. Hyde Clarke for important corrections.

‡ Defaulting States.

These are the States of unsettled governments and finances, and threatened or actual default of interest.

III.—*Credit and Discredit; their Geographical Distribution.*

1. The remark that naturally first strikes the mind on looking at these tables is the wonderful variety in the rate of interest on investments. It ranges through the most delicate gradations from the extreme of credit to the extreme of discredit, from 3¼ per cent. on the greatest possible certainty of being paid in England and Holland, to a nominal 33 and 66 per cent. on the greatest possible certainty of not being paid in Greece and Honduras. It was a favourite maxim of the Duke of Wellington, that high interest means bad security. Here he would have seen his maxim, or rather the converse, that bad security requires high interest, carried out in the most perfect manner in the adjustment of prices, by the daily and hourly judgments of the Stock Exchange of the world. Here are absolutely safe investments at low interest for those most cautious of all investors—Trustees; and every variety of unsafe investments at high interest for those most incautious and rash of all investors—Clergymen and Widows.

2. The second remark is on the geographical distribution of the States of good and bad credit. It is so uniform and regular that a map might be coloured with zones of the different degrees of credit, round the centre of good credit, London. The countries of low interest are all in the North, and Teutonic, as England, Denmark, Holland, Belgium, Germany, Sweden, and Canada, but with one great exception to this Northern rule, the English Colonies,—which, whether near the North Pole, or the Equator, or the Antipodes, maintain the credit of their mother country.

The countries of moderate interest are the three great States, an Empire and two Republics, next to the northern zone of low interest—Russia, France, and the United States,—together with an Empire and two Republics,—Brazil, Chili, and the Argentine Confederation, in the more temperate regions of South America.

The countries of high interest are, first, and less high in rate, the Central States of Europe, Hungary, Austria, and Roumania, with outliers in Portugal, Japan, and Columbia; and second, and more extreme in rate, the Southern European States of Italy and Turkey, and the Turkish dependency Egypt; together with the South American States of Uruguay, Cuba, Peru, and Ecuador.

The countries of excessive and defaulting interest are the South European States of Spain and Greece, and a shoal of Spanish-American Colonies near the Equator.

The connection between a temperate climate and pecuniary thrift, and between a hot climate and pecuniary recklessness, is very clearly demonstrated. The rate of interest rises with the thermometer, but cautious investors must beware of the blandishments of the sunny south.

Tennyson must surely have meant as an allegory his famous song on the "Swallow flying south," and must have been describing that financial swallow, British Capital, in her flights to Southern lands, when he sings—

> "O tell her, Swallow, that thou knowest each,
> That bright and fierce and fickle is the South
> And dark and true and tender is the North."

See too how he expresses her longing to lavish loans of millions on the South—

> "O Swallow, Swallow, if I could follow and light
> Upon her lattice, I would pipe and trill
> And cheep and twitter twenty million loves."

But how she ends by flying from the insecure South to her home of safety in the North.

> "O tell her, Swallow, that thy brood is flown;
> Tell her I do but wanton in the South,
> But in the North long since my home is made."

3. Let us look now at the increase of debt. There has been an actual decrease in the States of lowest interest,—England as compared with 1848, and Denmark, Holland, Belgium, and the German Empire as compared with later dates.

There has been a considerable increase for public works in the British Colonies, but these works have added largely to their prosperity. India alone has had large loans for war as well.

There has been an enormous increase in the three great States of moderate interest; Russia, France, and the United States, as well as in Brazil, Chili, and the Argentine Republic, quintupling their debt of 1848. The immense resources of the first three countries, have alone enabled them to keep the interest of their war loans, down to this moderate figure.

The debts have tripled in the more southern zone of Austria and her neighbours, through her long wars and consequent fall in credit. But this is still more apparent in Italy, Turkey, and Egypt, where continual deficits and loans have multiplied nearly twenty fold the small debt of 1848, and have brought these States to the verge of ruin.

The debts have also tripled in the dangerous and defaulting States of Spain and her colonies, and have probably only stopped at this figure from the impossibility of further borrowing.

The magnitude of the increase of debts will be best shown by another classification. Two-thirds of the increase has been incurred by six great States—

	£
France, United States, Russia, Austria, Italy, and Spain, whose total debts have increased since 1848 from	600,000,000
To	2,800,000,000
Being an average increase per State of	375,000,000

The greater part of the remainder of the increase has been incurred by six smaller States—

	£
Turkey, Egypt, Portugal, Brazil, Peru, and Mexico, whose total debts have increased since 1848 from	36,000,000
To	433,000,000
Being an average increase per State of	66,000,000

This increase presses as severely on the smaller States as the 375,000,000*l.* on the larger; and the two show clearly, the enormous proportionate additions that have been made to the indebtedness of the chief States.

IV.—*Profit and Loss of Public Loans at Present Prices.*

What has been the profit or loss to the public on this great mass of loans at the present prices? This is a business question, that especially interests a nation of lenders like the English. It is difficult to answer with accuracy, since in many cases accurate information is not obtainable, and in others the great variety of loans issued at different prices, renders an average very difficult. The variations of the English, Dutch, and Belgian funds are small, and represent the fluctuations of the money market rather than any change in the intrinsic value of the securities. About Germany there are no accessible data. In France, the depreciation on the old 3 per cent. rentes from about 67 to 57 by the German war, is almost balanced by a rise of 9 per cent. on the 5 per cents. issued during and since the war. For the United States, I believe 20 per cent. is a fair average of the rise since the civil war. India is also very difficult to ascertain. Egypt is now about the original price of issue. The following is an approximate table:—

Increase of Value of Stocks.

Country.	Average Rise of Price since Issue.	Increase of Value.
I. *Low Interest States*—		£
Denmark	75 to 91	2,000,000
India	10 per cnt.	13,000,000
Canada	5 ,,	1,000,000
Australasia	10 ,,	4,000,000
Sweden	90 to 112	1,500,000
II. *Moderate Interest States*—		
Brazil	93 to 98	3,000,000
Russia	86 ,, 96	34,000,000
Natal, &c.	10 per cnt.	400,000
United States	70 to 90	90,000,000
Chili	84 ,, 103	2,000,000
Argentine Republic	75 ,, 95	3,300,000
III. *High Interest States*—		
Japan	92 to 108	800,000
Roumania	85 ,, 95	1,300,000
Total increase	—	156,000,000

This is a rise in value or gain to the public of about 13 per cent. on the 1,200 millions of debt of the countries included in the list, leaving out of view England, Holland, Belgium, Germany, and France; and represents a very substantial profit to the lenders. But the loss account is larger.

Decrease of Value of Stocks.

Country.	Average Fall of Prices since Issue.	Decrease of Value.
III. *High Interest States*—		£
Portugal	48 to 44	2,800,000
Hungary	81 ,, 72	1,600,000
Austria	72 ,, 66	19,000,000
Columbia	86 ,, 81	500,000
Italy	71 ,, 61	36,000,000
Cuba	95 ,, 85	180,000
Peru	77 ,, 52	12,500,000
Turkey	60 ,, 52	10,000,000
IV. *Excessive Interest*—		
Guatemala	70 to 42	360,000
Bolivia	68 ,, 40	500,000
Spain	44 ,, 18	93,000,000
Mexico	60 ,, 9	40,000,000
Costa Rica	72 ,, 33	1,200,000
Paraguay	80 ,, 30	1,500,000
Venezuela	60 ,, 20	5,300,000
San Domingo	70 ,, 21	370,000
Greece	say 50 per cnt.	6,000,000
Honduras	80 to 14	4,200,000
Total decrease	—	235,000,000

This decrease or loss is 16 per cent. on the 1,457 millions of debts included in the list, being the whole of Tables III and IV, except Japan, Roumania, and Egypt.

Thus the result of State borrowing and investors lending appears to be, that investors as a body have gained in value about 156,000,000*l.* and lost 235,000,000*l.*, being a clear loss of nearly 80,000,000*l.* The losses have been on a larger amount of stock than the gains, 1,450,000,000*l.*, as against 1,200,000,000*l.*; and a larger percentage on that stock, 16 per cent. as against 13 per cent.

It is remarkable that the increase of value should be almost entirely in the stocks at low and moderate interest, and the loss almost entirely on stocks at high and excessive interest. It is another proof of the wisdom of choosing investments at moderate interest, given by wealthy States with stable Governments.

It shows that lending to strong and trustworthy States at moderate interest is good business, because such stocks are sure to rise in price, as soon as the State gets through its emergency, and ceases to borrow. It shows also, that lending to weak or untrustworthy States at high interest is bad business, because such States are likely to go on borrowing, and their stocks to fall in value in the market.

V.—*The Probable Future of National Debts.*

Such has been the recent increase and results of national debts. What is their future progress likely to be?

1. It is impossible not to fear that lest the inability or unwillingness to meet engagements which has overtaken Spain and Greece and so many Spanish Colonies, with a total 500,000,000*l.* of debts, should also overtake some of the States whose securities are next highest in interest and lowest in value, forming the second part of Table III, with a total 600,000,000*l.* of debts. Most of them are States whose expenditure largely exceeds their income, and who are compelled to resort to constant loans, to balance their annual deficits, and pay their interest. Three of them have lately been in the market, with large loans that have not succeeded. The Stock Exchange practice of syndicates, which affords such facilities and assistance in launching loans, becomes an element of ultimate weakness and danger when the credit of a State is tottering, and the loan unmanageable in amount. Why do States go on borrowing instead of retrenching? We may pardon Turkey or Egypt or Peru for adopting such a short-sighted and half-civilised policy. But why does Italy, which yields to no nation in intelligence and genius, persist in a course of over-expenditure, that is plunging her every year deeper into debt and danger?

2. Austria is another country with a very large debt, and continual deficits. Mr. Martin tells us, in the "Statesman's Year Book," that from 1789 to 1871, a period of eighty-two years, there was not a year in which the revenue came up to the expenditure. The deficits have been nine and ten millions sterling in recent peace budgets. Such a habit of borrowing must weaken the strongest State, and prepare the way for loss of financial credit and political consideration. Austria ought not to continue to expose herself to the risk, that is now being run by Italy.

3. France is not free from the same danger. Her credit is greater, and the saving habits of her people lay up a store of wealth. But she is now bearing a burden of debt greater than that of any other nation, and at the same time is keeping up and even augmenting her war establishment. When England came out of the French war, in 1815, she had a load of debt of the same amount, 900,000,000*l.*, and greater in proportion to her resources. But England reduced her military and naval establishments to the lowest point, and from 1817 to 1850 her total expenditure never exceeded 52,000,000*l.*, out of which the charge of the debt was at first more than 32,000,000*l.* France, with an equal charge of her debt, insists on keeping up a total expenditure of 100,000,000*l.* England started with a monopoly of financial resources, and manufactures, and commerce. France starts with diminished manufactures, and a loss of her position as a financial centre. England found her debt intolerable, till the immense expansion of trade lightened her burden. France will find her debt a very heavy burden, even if her national susceptibilities do not lead her to make it still more crushing. It is to be feared that war budgets may drag her down to the financial position of Austria, if not to that of Italy.

4. Russia has largely increased her debt, but has spent more than any other great State on the development of railways. Her system of lines is now nearly complete, and must add very largely to the commerce and strength of the Empire. She, like Austria, has had a long series of deficits, but the turning point seems now to have been reached, and, if no great war interferes, we may expect financial prosperity to raise the value of her securities.

5. The United States have been wonderful in their rapid accumulation of debt, and in its equally rapid reduction. Will they continue its diminution? Their growth in national wealth is so rapid, that its proportionate burden is rapidly diminishing. The maintenance of peace and economy, and the adoption of some of the principles of monetary and commercial legislation, will do more for the debt than even large surpluses.

6. England has made some progress in reducing her Debt, which now stands at 785,000,000*l.*, instead of the 900,000,000*l.*

of 1815. But, as in the United States, a great deal of this reduction was effected in the first years after the conclusion of the great Peace. Since 1860 her reductions have been larger than usual, but small in comparison with the United States. England's danger is that we shall not reduce our debt with sufficient rapidity during the period of prosperity, and that we shall have to face on unequal terms with exhausted coal and unexhausted debt, the competition of the immense mineral resources, and population, and energy of the future development of the United States.

7. The present character and tendencies of indebted nations lead to the expectation, that, unless the probable course of events is altered by great wars, the Northern half of Europe and the other borrowing countries will improve in the position of their national debts, and the Southern half deteriorate.

England, the United States, Russia, the German Empire, and their kindred States and Colonies, show signs of lessening their debts in proportion to their resources, and gradually outgrowing them.

France, Austria, Portugal, Italy, Turkey, and Egypt, and some of the solvent States of South America, unless they turn over a new leaf and manage to make both ends meet, so as to stop their constant borrowing, seem likely to go on increasing their debts and the danger of being overwhelmed by them.

Spain and many of her colonies are already overwhelmed.

VI.—*Conclusion.*

England, in the earlier period of national debts, used to be the great borrower of the world. Now she has dropped that character, and become the great lender. Every State, except Germany, is more or less aided by her capital, and returning her an annual tribute. No nation is so deeply interested in the credit and solvency of other borrowers. Is the total amount of national debts likely to go on increasing at the present ratio?

Unless the furies of war bereave mankind of reason, I cannot think it will increase so rapidly. The last twelve years have glutted the market, and our borrowers in southern climes have come nearly to the end of their credit. South America and the shores of the Mediterranean, can scarcely offer much further security. The Northern States have taken to reduction rather than increase. The fire seems likely to burn low for want of fuel.

But while there is a probability of decrease of national debts for unproductive objects, there will probably be a large increase of debts for productive purposes. English and German capital will be diffused continually over the world, but in the shape of railways, and telegraphs, and harbours, and manufactories, and sanitary works, and all the great undertakings that are the offspring of the present age of science and civilisation. Probably the debts will be incurred less as State debts, and more as city and local debts. Or they will be lent in the form which is now becoming so common, of the capital of companies founded for each enterprise, with State guarantees of interest.

I trust that, when, twenty-five years hence, some other member of this Society sums up in my place the progress of international indebtedness, and refers, perhaps with curiosity, to the figures of this paper dug up from your archives, he may be able to say that from this period there commenced a new order of things, a great diminution of unproductive lending, with a great increase of loans for productive purposes; and that though the debts of the world may then have been doubled, the increase will have been chiefly expended in works which have augmented the wealth, and health, and intelligence, and happiness of the human race.

DISCUSSION *on* MR. DUDLEY BAXTER'S PAPER.

MR. JACOB FRANKLIN doubted whether the funded portion of our national debt could be regarded as greater than about 717 millions; for we, as well as Holland, have a 2½ per cent. stock. He based his computation not on nominal capital, but on capitalisation at prevailing rates, of the annual charge for dividends, as set forth in the official finance accounts. In reply to an inquiry, he explained that some investors prefer a 2½ to a 3 per cent. stock in view of possible repayment at par; but there is no obligation to redeem at par in either case. He considered, also, that in estimating national debts relatively, a point to be noted is the proportion of home investments to claims of foreign creditors. Thus, for instance, over 61 millions of our national debt is held for savings banks, and so much of the public funds as are held by life assurance companies, are also national savings. Moreover, certain miscellaneous items of account, indicate assets in excess of the liabilities chargeable upon our national debt in respect of them.

Mr. HYDE CLARKE asked if the debts of the States of the American Union were included in the total given in the table.

Mr. DUDLEY BAXTER said they were, but not the local debts.

Mr. HYDE CLARKE said it was represented in the tables, that in 1848, Columbia, or New Grenada, had no debt, but had now a debt of 9,000,000*l.*; whereas, in 1848, the debt of what was then called Columbia consisted of the debts of the present Columbia, Ecuador, and Venezuela, and those three States had added very little to their debt since. By fresh borrowings, a considerable part of the apparent increase arose from the capitalisation of coupons. Guatemala, Bolivia, Costa Rica, and Paraguay were not now in default, although Guatemala not long ago did commit a default, and that of course told against her in the market price.

It was difficult to see the practical bearing of the last table. Ecuador, Honduras, Venezuela, San Domingo, and Mexico did not pay. For instance, Honduras was credited as paying interest, but, so far as he was aware, none was being paid on either the Honduras part of the federal debt of Central America, or the main part of the stock issued on the plea of a railway. On what ground was Greece credited with the payment of any interest? England, Russia, and France, the guaranteeing powers, paid the interest on a portion of the debt, but Greece had hardly paid a penny from the beginning of the guarantee to the present time, nor to her general creditors. The Greeks, however, took care to pay their own citizens on the local debt, but left foreign creditors unprotected. He could not follow Mr. Dudley Baxter with regard to the effect of market price. The market price of stocks was always fictitious, depending entirely on the small quantity brought into the market; but the stock of some of the defaulting States remained in the hands of the original subscribers, or their representatives, and had never been brought into the market. It was a matter of importance to treat this question of market price in a proper manner, for defaulting governments were in the habit of offering composition, on the basis of the market price. Having first depreciated the market by not complying with their obligations, they then tendered to their creditors a reduction, both of principal and interest, alleging that they were prepared to give ample compensation on the basis of the market price. He knew that a considerable part of the money for loans contracted in the London market, this being the money market of the world, was obtained from foreign investors, and was not, as supposed, the simple loan of English capital, while it was a well-known fact that many of the loans mentioned in Mr. Dudley Baxter's tables had been afterwards sold to continental buyers at a profit. In the conversion of 10,000,000*l.* of Anglo-Austrian stock, it was found that only 1,000,000*l.* was held in this market, though a large proportion of the original loan must have been subscribed here. Of Columbian and Venezuelan, large portions were known to be held in Holland. The operations in foreign loans largely contributed to our national wealth. The paper did not clearly state the causes which were operating to produce the great increase of debts. Of course, in the case of certain States, a considerable portion of the increase was due to war expenses, but even here a portion was an addition to the national stock of wealth to all, in improved weapons and stores. With regard to Russia, it would be gratifying to hear that, for the first time in the financial history of that country, the deficit had been met, if it were reliable, but considering what continental budgets usually were, there was some reason to doubt whether it would not turn out that in this instance, as in the others, the ultimate result was a very large deficiency. The evidence which their honorary member M. Wolowski had brought forward, proved that Russian finance was in a very bad condition indeed. He should like to hear what proportion of the debts generally, had been applied to the construction of public works. So far as he could ascertain, the amount could not be less than 500,000,000*l.*, and possibly it was a great deal more. To arrive at any accurate result, it was necessary to know also how much had been raised for railways by local or municipal debts, or in the form of joint stock companies, because a country with a large debt might not really be worse off than another with a less debt, for this latter may have raised funds for public works from other sources than a national debt. He did not agree with Mr. Dudley Baxter in thinking that the borrowing for South America would cease, for the vast development which was taking place in that part of the world, would cause a great demand on the money market for public works. He believed that the debts of the various civilised nations, large as they now were, would have to be still further augmented in order to give due effect to the progress and development of civilisation. The general rise in prices throughout the world, consequent on the alteration which had taken place in the means of transport, while on the one hand it increased the revenues of a country like Turkey, would, on the other hand, increase the expenditure, and so embarrass the finance minister. Much of the effect on market prices was the result of the nefarious proceedings of local usurers, of unprincipled contractors, and illegitimate syndicates. Portugal, a few years ago, was in the condition of Spain, but had lately succeeded in emancipating herself, and in bringing the rate down to a little over 6 per cent., with a prospect of a still further reduction. One great source of the wealth of Holland, undoubtedly was her investments in various stocks, including some of those very bad ones, as Mr. Baxter considered, which figured in Table IV, and there was no reason to suppose that the wealth or enterprise of Holland had been by any means diminished in consequence.

Mr. J. Coles said that Mr. Dudley Baxter had made a slight mistake at the outset in assuming that the English were the most heavily taxed people on the earth. At present the French were paying nearly 1*l.* per head.

Mr. Dudley Baxter. I did not take England as the highest. France is about 18*s.* 6*d.*

Mr. J. Coles said instead of the United States being set down at 5·5, as in Table II, there could be no doubt that taking the funded 5 per cent. loan, and throwing out those liable to redemption, the United States ought now to stand in Table I. While England could get money at 3 per cent., and lend it to the United States at 5 per cent., she would certainly be better able to cope with the United States, than if she called in the money she lent to the United States, to pay off her own debt.

Mr. M. N. Adler said the return to the investor was in many cases higher than was stated in Mr. Dudley Baxter's tables, because most of the Foreign

States, having issued their loans at a discount, provided sinking funds by which their stocks were made repayable at par, certain drawings taking place every year. Turkey, for instance, had a sinking fund of 1 or 2 per cent. per annum for each of its loans, and therefore the return to the investor at the end of 1873 was really above 12 per cent. instead of 10·7. In the case of Peru, the operation of the sinking fund must have made the return something like 11 per cent., and for the recent loan as much as 14 per cent. Referring to a remark made by Mr. Hyde Clarke, Mr. Adler thought that the large Russian loans recently contracted, represented a good deal of productive expenditure applied to railways; as the credit of the State was better than that of the railway companies, the Government contracted the loans on their behalf, although in States whose credit was bad, companies had to be formed and debts created without State guarantee; in the case of governments of good credit, it paid better for the State to come forward as the borrower rather than the towns or local bodies, to promote industrial enterprise.

Mr. F. P. **Fellowes** said a part of the debts of Belgium, India, Australasia, and Denmark had been incurred for railways and public works. If the English Government were to purchase the railways, though the amount of our debts would be greatly increased, the indebtedness of the country would really not be greater than at present, for the property possessed would be equivalent in value to the sum given for it. Nothing could really be known of the indebtedness of a nation, unless the assets of that nation were known, and it was for that reason he had advocated that the English Government should have a statement of the value of the property under their charge, with the increase or decrease year by year. Probably the assets of the English Government were equivalent to the national debt, but no one could tell for certain whether it was so or not. If the property in the possession of a Government, as Government property, was equivalent to its national debt, then the Government was not really in debt at all.

Mr. J. B. **Brown** was of opinion that Germany and the United States, having now done with their great wars and giving their great energies to peaceful industry, would soon shake off their debts. He believed also that Austria, chastened by her adversities in Lombardy and at Sadowa, was now happily turning her attention, along with Hungary, to the development of their almost unbounded natural resources to an extent that, in all probability, within the next quarter of a century these great countries will be out of Table III and into Table I. It seems quite evident that those countries which are advancing most in intelligence, forgetting war in peaceful and more profitable pursuits, and paying most attention to education, would, in the future, be those in which the burden of a national debt would be most diminished.

Mr. W. **Tayler** said he did not consider that England had paid off her debt to any very great extent, compared to her resources. In 1815 the debt was very large, and if only 1,000,000*l.* a-year had been continuously applied to its reduction we should now have stood in a proud position among the nations. He had had, recently, opportunities of judging of the present condition of Russia, and instead of being hurt by her apparently large debt, Russia had enormously benefited by it. Those who had not seen the progress which that vast empire had been making of late years, could not form any idea of it. She now had railroads from one end of the empire to the other, which experience has shown are the great pioneers of civilisation and commerce. The credit of a country should be the criterion of its indebtedness. There could be no doubt that England bore the largest proportion of the aggregate of national debts, as well as of taxation, but a great many States, particularly those of South America, were in the position of a man whose estates were mortgaged up to his chin, and in such cases, whether nations or private individuals, they were very likely to come to grief. He also should have been very glad to have seen embodied in Mr. Dudley Baxter's valuable paper, some statistics of the loans of those States which had repudiated or evaded their debts and obligations in past times, and which had occasioned such great losses and suffering to many in this and other countries.

Mr. W. Fowler, M.P., said that the mere amount of the debt of a nation was no criterion of its position, because the debt might have been incurred for most beneficent purposes. The old debts were unfortunately incurred for the worst possible purpose, the destruction of our fellow men. He regretted that English money was not more largely employed on works at home. Instead of lending so much to all sorts of Governments, good and bad, a great deal more might be most profitably used for such purposes as the draining of our own land. Mr. Dudley Baxter seemed to think, that England ought to make a gigantic effort to get rid of her debt. He himself would advise that it should be paid off rapidly, if he thought it would be a good investment of the money, but he had great doubt on that point. If he could invest money safely at 5 per cent., it could not possibly pay to invest it at 3¼; and if the people were taxed to pay off the national debt would not that be equivalent to investing their money at 3¼ per cent., instead of leaving them to make a much higher interest. Mr. Dudley Baxter said that if such a heavy debt continued, England would be in a very bad position when exposed to a greater competition with foreign countries. That was an argument for doing something towards paying off the debt, but it seemed to be forgotten that a large sum was actually paid off yearly. Something approaching to 2*d.* in the pound income tax was every year paid off in the discharge of the terminable annuities, and when he remembered how heavily that tax pressed on the lower class of tax-payers, and that the future benefit to the country was purely a speculative matter, he hesitated to recommend that we should tax ourselves more heavily for the advantage of future generations. He was not yet convinced that such a proceeding would be a wise investment of the energies of the nation. The same argument might have been used in 1815, but was it not a fact that at the present moment the country was infinitely better able to pay the interest on the national debt than were our ancestors in 1815? Some people argued as if England had got to the top of the tree, and must necessarily go down instead of going up, but every year showed that there was an almost incalculable increase before us of prosperity and wealth, if those gigantic wars were avoided which had produced such terrible lists of national debts. He was not afraid of a national debt when that debt was wisely incurred, but he certainly feared national debts which only represented guns and gunpowder, gun cotton and dynamite, and other such instruments of destruction.

Mr. C. Walford suggested that Mr. Dudley Baxter would do good service, if he should on some future occasion raise the whole question of the effects of national debts upon the prosperity of nations. The countries having the largest debts were (with one or two marked exceptions) really the most well-to-do countries in the world.

Mr. J. Bogie said the figures given by Mr. Dudley Baxter as representing the debt of India was 130,000,000*l.*, but that was certainly incorrect. It was nothing like that amount. Excluding the railway guarantee, it could not be more than 112,000,000*l.* or 113,000,000*l.* At the end of 1871, Sir R. Temple's figures showed a debt of 105,000,000*l.*, but that excluded the old East India Company's loan of 6,000,000*l.*, which was being gradually paid off. India was already in a sad plight, and it might be thought necessary to add some millions to the debt in consequence of the famine; let it not, then, be supposed that her present debt was higher than it really was.

Mr. H. M. Hyndman said it seemed to be taken for granted that Russia offered a good investment for English capital, and that her finances were now in a good position. If her loans had been used for productive purposes, certainly she would be better off than she was before she contracted them, but he had yet to learn that her lines of railway were not constructed rather for strategical than for commercial purposes. Every step that Russia took in Central Asia entailed so much of deficit, and he did not believe that she had yet ceased to take steps in that direction. The increase of her debt would, therefore, rather tend to cripple than to benefit her.

Sir GEORGE BALFOUR, M.P., stated that he rose to explain the statement made by Mr. Bogie, that the Indian debt was overstated by Mr. Baxter at 130,000,000*l.* This probably arose from looking at the debt in India alone, without the other debts. By including the debt incurred at home with that in India, and adding the capital of 10 millions of the East India Company, which is guaranteed 10 per cent. and therefore more than equal to 12,000,000*l.* at 4 per cent., then the total debt of India at home and abroad may be stated at near 140,000,000*l.* But to this debt must be added the liability incurred for railways constructed in India; this expenditure being guaranteed a minimum rate of interest, and about 4 millions being this year paid by the Government of India, the railway debt may be assumed at 80 millions, thereby raising the total debt of India to fully 220 millions. But, so far from regarding that amount as an objection to further debt being incurred, he would gladly see additional money raised on loan, on the condition that it was specially appropriated, and judiciously expended on productive works. It should be borne in mind that, with an outlay of capital at the rate of about 30*s.* per acre, spread over an extensive area, a series of waterworks could be constructed so as to provide not only canals but also increase the products of the soil fourfold, and effectually guard against droughts; with this expenditure an acre of land would yield sufficient food for four souls, so that if sufficient capital had been employed on irrigation works, the present expected famine would have been prevented.

He was also desirous of suggesting to Mr. Baxter to include amongst the debts of this country the local debts incurred in various localities on the security of local rates and taxes. The local taxation accounts of the last three years show that the local debts have sprung up from 59 millions in 1869-70 to 69 millions in 1871-72, and that this debt is yearly on the increase; the receipts from purely local rates only amount to about 22 millions, whereas the yearly expenditure was nearly 32 millions, the difference being made good by miscellaneous collections, aids from the imperial treasury, but especially by loans. Unless this debt, which alone referred to England and Wales, were brought into our accounts as part of the debt liabilities of this country, so as to be strictly credited and controlled, he was afraid that some localities of our country would soon be brought to the same condition as some of the American States, of either repudiating the debts or defaulting in paying interest, as in the case of many of our road debts.

With regard to the remarks made as to the importance of paying off a part of our debt, he readily admitted that this was a most desirable object to keep in view, but he could not fail to agree with the excellent remarks of the honourable member for Cambridge (Mr. Fowler), that so long as the national wealth was on the increase, and the ability of the people increased to bear the burthen of our debt, and necessarily with additional facilities for meeting this liability in case of need, he would prefer the application of any funds that may be available, not in paying off debt, but in removing obstructions to our trade and manufactures, by doing away with taxes and dues, which still greatly impede us. He viewed the financial changes which, of late years, had been effected as wise and prudent measures, having largely increased our industry and our wealth, thereby multiplying our means to pay off the debt when the fiscal changes have all been carried out, and, above all, enabling us to run the race of competition with other nations, with a fair chance of winning.

Mr. F. HENDRIKS recommended that some attempt should be made to ascertain certain useful statistical information, of which there is an absolute dearth at present, namely, the amount of interest which England drew from other countries in respect of loans raised in London, and charged with dividends payable there. This, he thought, might, without any great difficulty, be accomplished by a proper arrangement and publication by Government of the income tax returns required from the loan contractors and agents charged with the periodical payment of interest on such loans, and who themselves deducted income tax from the proprietors of the loans on cashing their coupons.

Mr. W. G. Lumley, adverting to the money borrowed for local purposes, said the money that had been so borrowed in England had been applied to produce a more or less beneficial return in the improvement of streets, supplying gas and water, paving streets, and the like, and not in useless subjects, such as guns and gunpowder, and other warlike matters. Moreover, the loans had been repaid with punctuality, and by annual instalments. The workhouses of most of the unions had been built out of borrowed money, which had been for the most part repaid.

The Right Hon. H. C. E. Childers, M.P., said that the lecturer had skilfully avoided adherence to either of the extreme doctrines about the national debt, the duty of rapidly reducing it, or the impolicy of applying for that purpose money which was more profitable in the people's pockets. But the policy of English statesmen, since the great war, had been something between the two, namely, to gradually diminish the debt by two operations, by the natural increment of the revenue from year to year, and by keeping up a certain amount of terminable annuities, at this time amounting to nearly 5 millions per annum. He thought the lecturer had hardly recognised the extent of recent reductions. Since the Crimean war the debt had been paid off more rapidly than before that time. Since 1857, the capital of the debt had been reduced by no less than 50,000,000*l.*, besides the 10,000,000*l.* which had been applied to the purchase of the telegraphs, and from 5,000,000*l.* or 7,000,000*l.* had been lent for remunerative purposes out of money borrowed; so that somewhere about 4,000,000*l.* a-year had been paid off. The question as to how much is held by us in foreign loans is very interesting. It is connected with that daily increasing difference between our imports and exports, the excess of the former being the contribution under which we are placing foreign nations, by our profitable investments abroad. It would be exceedingly interesting to have information with regard to the amount of interest on foreign stock which was received in England, but he doubted whether it would be practicable to obtain it by means of the income tax returns. He was also afraid that Mr. Fellows' suggestion with regard to assets, would after all hardly offer a guide in the statistics of the debt, for the credit of that debt depended not on the assets of the Government but on those of the country. Still it would be very desirable to have accurately audited accounts of capital (as distinct from income), receipts, and expenditure, and he believed that this could be done without at all disturbing the form in which public money was appropriated by Parliament.

Mr. Dudley Baxter replied, but as the report of his reply was not received when it became necessary to send the *Journal* to press, to secure its timely publication, it is, of necessity and with regret, omitted.

Some STATISTICS *of the* COURTS *of* JUSTICE *and of* LEGAL PROCEDURE *in* ENGLAND. *By* F. H. JANSON, ESQ., F.L.S., *President of the Incorporated Law Society.*

[Read before the Statistical Society, 17th February, 1874.]

FROM an expression put into the mouth of Hamlet, it is clear that even in Shakespeare's time the "law's delay" had become proverbial, and it can readily be conceived that in ancient times much delay must necessarily have resulted from the centralisation of the courts of justice. Even the assize towns, visited by the Judges at somewhat uncertain intervals, must have been difficult of access to the larger number of suitors, whilst the City of Westminster, where all plaintiffs were presumed to commence their proceedings, and all defendants were summoned to appear, was less easily reached from many parts of the kingdom, than America would be from Liverpool in the present day. The business of the Court of Chancery has always, no doubt, been conducted exclusively in the metropolis.

The delays of the law were, however, much augmented (especially in common law procedure) by the growth and persistent maintenance of fictitious and grotesque rules of procedure, many of them of the most ludicrous and vexatious description, the discussion of which occupied a large part of the time of the Courts, and produced an ever-increasing crop of legal decisions.

The defects in the administration of justice, especially in the business of the Court of Chancery, may be said to have culminated in the first quarter of the present century. In a late review of the life of a celebrated publisher, the writer, enumerating the national difficulties of a particular epoch, observes that "Lord Eldon and the "Court of Chancery pressed heavily on mankind."

Not long after his retirement from office, and during Lord Brougham's tenure of the great seal, some improvements were effected, and many of the old cobwebs of special pleading and antiquated process were swept away; but, although the work of reform has been going forward ever since, much, very much, remains to be done, to render the course of justice as expeditious as it ought to be, and I believe might be, made.

I propose to give some Statistics of our Courts of Justice and legal procedure, not only because they may be found interesting in themselves, but, in the hope that the consideration of them, may tend indirectly to promote those further improvements which are still urgently needed.

I am, of course, not unmindful of the recent passage of the new Judicature Act, which is appointed to come into operation next November, and which will make some important changes; but as its practical working will to a considerable extent depend upon Rules which are not yet framed; and, as its chief object is consolidated jurisdiction, and while making certain changes in the course of procedure, it leaves the constitution of the Courts unaltered, suggestions as to what changes are still required, can hardly be considered out of place, and may not be without their value. We have been lately told, that so much difficulty has been experienced in framing the Rules, that it is intended to postpone the date at which the Act is to come into operation.

Arguing *à priori*, one would say that a few weeks, or at most months, ought to be sufficient, in the great majority of cases, to enable both the litigant parties in a suit or action, to appear before the proper tribunal, prepared in all respects to invite a decision on the matter in dispute, the Court being prepared to deal with it. The statements which follow, and a reference to the tables at the end of this paper, will show how far this is yet from being the case.

Our Courts of Justice may be classified in two grand divisions, those of Common Law, and those of Chancery. The former, including the Courts of Queen's Bench, Common Pleas, and Exchequer, and the Courts of Probate and Divorce and Matrimonial Causes, and the latter, those of the Lord Chancellor, the Lords Justices of Appeal, the Master of the Rolls, and the three Vice-Chancellors, and the Court of Appeal in Chancery of the County Palatine of Lancaster. There are, besides these, the Court of Bankruptcy, the Ecclesiastical Courts, the Court of Admiralty, the Courts of Pleas of the Counties Palatine of Lancaster and Durham, and, as Courts of inferior ranks, the Lord Mayor's Court, the Sheriffs' Courts, and the County Courts.

There are two general Courts of ultimate appeal, the House of Lords, and the Judicial Committee of the Privy Council; the former, at present, taking appeals from the superior Courts of England, Scotland, and Ireland, with the exception of the Ecclesiastical and Admiralty Courts; the latter the appeals from the excepted Courts, and from those of India and the various colonies. A new Court of appeal, however, is constituted by the Judicature Act, to deal with appeals from the Supreme Court, which will include the present English Courts of Common Law and Chancery, while power is reserved to the Queen in Council, to transfer to it appeals from the colonial and ecclesiastical Courts. The late manifesto of the Prime Minister shadows forth an intention to add to its jurisdiction, at no distant date, appeals from the courts of Scotland and Ireland.

The three older Courts of Common Law, till within a comparatively recent period, consisted each of four Judges, a number which had existed from a very remote period, certainly from the reign of Edward I. The number was increased to five in each Court about forty years ago, and more recently to six, when the trial of petitions against elections to seats in the House of Commons, was transferred to the Courts of Common Law. There is one Judge of the Court of Probate and Matrimonial Causes. This jurisdiction, previously to the year 1859, belonged to the Ecclesiastical Courts, and was then transferred by special statute.

The business of the Court of Chancery is administered by the Lord Chancellor for the time being, two Lords Justices (when the Court is full), the Master of the Rolls, and three Vice-Chancellors; one of the Vice-Chancellors discharges also the duties of Chief Judge in Bankruptcy, which occupy a large amount of his time, but these duties will, under the new Judicature Act, ere long be transferred to the Exchequer division of the Supreme Court. The Lord Chancellor and Lords Justices only sit (separately or together) as Courts of appeal.

The Judges of both the great divisions, that is, of Common Law and Chancery, are assisted in the discharge of their functions by officers who are called Masters at Common Law, and Chief Clerks in Chancery. The latter superseded the old Masters in Chancery, whose office was abolished about the year 1853.

Now, two hundred years ago, in the reign of Charles II, when the population of England and Wales was about one-fifth, that of the metropolis one-tenth, of its present number, and the business of the Courts bore no comparison with that of the present day, there were twelve Common Law Judges, with the same number of assistant Masters as at present; a Lord Chancellor (whose Court was then a Court of first instance as well as of appeal) and a Master of the Rolls, who were assisted by the Masters in Chancery, officials possessing considerable social status, and who discharged important functions. The Lord Chancellor dealt with such bankruptcy cases as arose in those comparatively simple times.

The additions to the judicial force made since that period, are, to the three principal Courts of Common Law two Judges each, six in all; to the Court of Chancery three Vice-Chancellors; and for appeals in the first instance two Lords Justices; but, independently of the increase of business arising from the growth of wealth and population, there are now thrown upon the Common Law Judges the business of hearing petitions on disputed elections (formerly dealt with by Parliament itself) and appeals from the decisions of the revising barristers; whilst the Chancery Judges have the heavy work (new to our times) of what are called "winding-up" cases, viz., the settlement of the affairs of joint stock companies in liquidation, besides the various kinds of administrative business confided to it in recent years, by various statutes.

In the subjoined tables, I have given a full statement of the numbers of the Judges and subordinate officials of each of the Superior Courts, and the number of days in the year during which those who occupy judicial or quasi-judicial positions, have sat in public, together with the best account I have been able to procure, of the amount of business transacted in the several Courts during a twelvemonth.

The changes effected by the new Judicature Act have little, if any, bearing on the foregoing statements, which I admit refer altogether to the *present* constitution and *personnel* of the Courts. The same number of Judges and officials, with the same names, and, except as to the Judges, the same functions, will continue when the Act comes into operation. The Judges, it is true, more especially the Common Law Judges, will have jurisdiction confided to them which, up to the present time, has been possessed by the Judges of other Courts exclusively; and the procedure of the Courts, especially in its earlier stages, may, and probably will be, found to be simplified; but the work thrown upon the functionaries I have alluded to is not likely to be diminished, on the contrary, it may be found to be materially increased.

How far the attempt to obviate delays by simplification of procedure will be effectual, remains to be seen. I can state, on the authority of one of the learned Judges, that the Rules of the Common Law Courts, promulgated in 1832 with a view to simplify the system of pleading and thus to shorten proceedings, rendered it far more technical than before, and it was not until the passing of the Common Law Procedure Act of 1852 that an effectual remedy was applied. An amusing specimen of the game of chess played between pleaders in those days, will be found in the case of Armani and Castrique, which came before the Court of Exchequer in the year 1844, when an action on a foreign Bill of Exchange for 740 frs. (to which there was no defence) was hung up for two years, by a false though legally justifiable plea, in which the Bill was called an "Inland Bill." The plaintiff found himself obliged to demur to the plea, and had a decision against him, but with leave to amend his Declaration, which was in effect to begin the proceedings anew. The defendant's object, which was doubtless to gain time, was effectually attained.

The Judges of the Courts of Common Law, are sometimes called upon to sit as assessors to the Bishops in their respective Courts, as has lately happened at Exeter. The Judges of two of the Common Law Courts, have hitherto constituted the primary Court of appeal for the third, and during the Session of Parliament are called upon from time to time to attend the House of Lords, when sitting as a Court of ultimate appeal. The primary Court of appeal is abolished by the new Judicature Act; but the chiefs will be *ex officio* members of the new Court of appeal, which will have to do the work hitherto performed concurrently, by the House of Lords and the Judicial Committee of the Privy Council.

We will now consider how far the present staff is adequate to the performance of the duties as yet required of it, and whether the full amount of work which might reasonably be expected of it is obtained, and, if not, whether it is the fault of the system, and how it can be remedied.

The true test of the adequacy of the judicial staff, (assuming that its powers are exercised to the best advantage,) is the expedition with which the business of the Courts is conducted and brought to a conclusion. The object of the suitor is to get his case, whatever it may be, ended; and the true interest of the practitioner lies in the same direction. That expedition is important to the suitor, no one will deny. There is a common impression that the practitioner benefits by the law's delay, but nothing can be more erroneous. The delays arising from the periods of time which, according to the present system of procedure, must elapse between certain stages of the proceedings in all the Courts, and the delays which arise, especially in the Court of Chancery, from the difficulty of getting business proceeded with continuously before the subordinate judges or chief clerks, is extremely prejudicial to the attorney or solicitor. He has to keep the subject-matter more or less simmering in his mind (which new business would more profitably occupy) for an unnecessary length of time, and to look up the facts and figures afresh each time he has to attend before the officers upon it; and, as he has to bear all the outlay for fees to counsel, court fees, as well as his office expenses, the delays referred to involve a very serious loss in the interest of money, which the few additional attendances engendered by the delay, do not at all compensate for. One consequence is, that the work is not so well done, and that there is an increase of cost to the suitor without corresponding benefit to the practitioner, so that all parties suffer.

A considerable time necessarily elapses in bringing a case to a hearing; the pleadings, or in other words, the statements on either side by which the exact issues to be dealt with by the Judge are ascertained, have to be settled, witnesses examined, interrogatories exhibited and answered;* and in those cases in which the evidence is to be adduced in writing, this has to be taken and reduced into proper form. But when all this is done, and the Cause, being ripe for decision, is set down for hearing, the suitors have not unfrequently to wait six or nine months before it is reached, and if the briefs have been delivered, additional fees, called refreshers, are in some cases paid to the counsel, for each term that elapses after the briefs were received by them. In Chancery there is, in a large majority of cases after the first hearing, a reference to the Chief Clerk to make inquiries or take accounts, the results of such inquiries or account takings being embodied in a report, on the conclusion of which the case is again set down for what is called "Further Consideration," the decree made on which is the final and really important one. From the limited number of the chief clerks, and the multiplicity of matters referred to them, great delays are often experienced in obtaining appointments to proceed; and a fixed time only being allowed for proceeding on each summons, the case, if it is found to occupy (as it often does) more than the allotted period of time, is adjourned to another day, often at an interval of some weeks. I recollect a case in which I was engaged, one in which expedition was important, where the chief clerk, eminent in his class for industry and capability, was unable to give successive appointments at intervals of less than two months.

Similar delays not unfrequently occur in the offices of the Taxing Masters of the Court of Chancery, who appear always to be overweighted. The delays in this office, often stop the progress of an entire Cause. Whatever the importance of the case to the parties concerned, and however trivial the question of costs may be, the course of the Court is to have all bills of costs which are to be paid by its direction submitted to a Taxing Master (who has no previous knowledge of the business, and sits in a very different locality to the other Chancery officials), and generally to have the taxation complete before the final order or decree is made.

In a letter which appeared in the "Times" of the 26th January from a firm of solicitors, it was stated that on the 15th July last they applied at the office of one of the Taxing Masters in Chancery for an appointment to tax some bills of costs in a suit, but were told that the office was quite full, and that there was no chance of obtaining an appointment before the long vacation, which turned out to be the case. On the 3rd of November they again applied, and obtained an appointment for the 3rd December, being the earliest day that could be named, the arrears left at the closing of the office for the long vacation having been so large. They add that a considerable loss was occasioned to their clients by this delay; that the Taxing Masters, as well as *all* the departments of the Court of Chancery, are underhanded, and that, in their opinion, its business would be largely increased if facilities were given for its transaction in a reasonable time. Some profane and shortsighted persons would perhaps say that such increase would not be an unmixed advantage to the community; but it is clear that those who need the aid of the Court ought to be able to obtain it promptly, and not find it choked with the business of other people.

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* In Chancery a defendant is, by the rules of the Court, allowed four weeks to answer the statements in the bill, but even this time is extended, almost as a matter of course, on application to the Judge.

I ought not to omit to mention, that the apparent expedition with which some Judges of the Court of Chancery have got through the business of their Courts, is attributable to the practice of throwing upon the Chief Clerks important duties, which they were not originally intended to perform. It has often been urged that an addition to the number of Judges of this Court would enable them to work out in chambers their own decrees, while the facts and circumstances were fresh in their minds, leaving the Chief Clerks to dispose of the administrative business, which is now too often kept waiting for the consideration and discussion of important questions of principle, that would be more properly dealt with by the Judges. Another great want is that of readier access to the Judge. If there were the same facility of appeal from the Chief Clerk to the Judge, as there is from a solicitor's clerk to his principal, as there easily might be if a Judge sat in chambers three days in each week, much valuable time would be saved. In a report of a very large committee of solicitors to the Council of the Incorporated Law Society, made in the year 1851, it was represented as "essential to the proper "and speedy administration of Chancery business, that to each Court "there should be appointed two Judges, who should sit in Court "and chambers alternately, each working out in chambers his "own decrees." This report was afterwards submitted for the consideration of Parliament: see vol. xiii, "House of Commons "Reports, 1852."

The Chief Clerks and Taxing Masters sit about 210 days out of the 365, from 10 to 4. In vacation one Chief Clerk attends for all the Courts four days in the week for two hours, and one Taxing Master is available, that is to say, within call, although I believe his services are seldom, if ever, invoked. The Chief Clerks frequently work over office hours, indeed the preparation of their reports (technically called certificates) could hardly be got through, during the period of the day allotted to the sittings in public. The Taxing Masters also, frequently devote their evenings, to the perusal of papers.

The delays at common law are less severely felt, but still the work is always more or less in arrear, and a fresh arrangement of business between the Judges of the various Courts, which may be the result of the new Judicature Act, *will not lessen the total quantity to be got through.* This is manifestly too great for the present staff, the increase of labourers not having by any means kept pace with the increase of the work to be done.

In the answers furnished by the Incorporated Law Society to the Judicature Commission last year, it was observed that for the transaction of Chancery business, which is by its nature much heavier and involving much larger amounts, there is a great disproportion between the number of the Judges of that Court, and of the Courts of Common Law. There are only four of the former sitting as Judges of first instance, while there are eighteen of the latter. The work of the former, or rather the time occupied by them in hearing contentious cases in Chancery, will be greatly increased by the new system, which will shortly be inaugurated, of taking evidence in most cases *vivâ voce* in court; and one of them, the Master of the Rolls, is to be an *ex officio* member of the new Court of appeal. Of this Court, the three Chiefs of the Common Law Courts, and the Master of the Rolls will be, *ex officio*, members, and will be necessarily, thus, largely withdrawn from the ordinary work of their Courts.

I feel bound to say that the work of the Judges and of their officials, (with some not very important exceptions) is considered by the profession to be well and conscientiously performed. The old sinecure offices are all, or nearly all, abolished, and the annual cost to the State for compensations for the abolished sinecures, are gradually coming to an end. There is, however, one office connected with the Court of Chancery which still holds on, with all the dignified apathy of a functionless department. This is the Writ Clerks and Record Office, the business of which is very much limited to the supplying of stamps by which fees are collected, and the custody and furnishing copies of the Chancery records. The business, which is obviously one of routine, could be, and is, I believe, entirely done by the subordinate officers, who, I should wish to say, are obliging and useful in their sphere; yet, up to the present time, there are maintained at the head of this department three officials with salaries of 1,200*l.* per annum each, whose chief ostensible function is, and for many years has been, to perform the mechanical duty of administering oaths in chancery, for which a charge on the deponent is made for the benefit of the Chancery Fee Fund, of 1*s.* 6*d.* per oath.

It has been thought by some, that the expense and delay of legal proceedings, especially those relating to commercial matters, might be materially diminished by the adoption of Tribunals of Commerce, or Courts of reconciliation. The experience of arbitrations, however, is not favourable to the withdrawal of contentious proceedings from the legal tribunals. In all important cases, a barrister is either the arbitrator or assessor; counsel are employed on both sides, and the meetings are fixed, and as frequently postponed, to meet the engagements of these gentlemen. The want of authoritative control on the part of the arbitrator (I speak in a moral rather than a legal sense) leaves the suitor and the solicitors at the mercy of the counsel employed, as to the dates at which the meetings are fixed, and the time to be devoted to them, and thus delays and consequent expense are largely multiplied. Moreover, the Judge and his assessor (if there be one) as well as the attorneys and counsel employed, have to be paid by the disputants. Some of the leading counsel do not think it necessary to attend, after having positively agreed to do so, and nevertheless insist on being paid their full fee, as if they had taken part in each sitting.

It is true that the new Act provides for referring cases to Official or Special Referees, and directs that they shall sit *de die in diem;* but, it is impossible to judge how far this direction will be acted on; or with what amount of discretion as to length of sittings, even if continuous sittings take place, the Referees may consider themselves invested. There can be little doubt that from the courtesy which is always shown to the bar, and by solicitors to each other, arrangements for meetings will be made to bend largely to suit the convenience of the practitioners, whenever the presiding functionary holds any position short of the dignity of a judge.

Commercial tribunals, holding sittings at fixed periods and clothed with power to enforce their decisions, might be able to command more regular attendance; but even if commercial men of sufficient eminence and ability could be found, who will be willing to give their time to the work as judges, which is more than doubtful, lawyers would be engaged to get up and conduct all cases of importance, and we should thus merely have the proceedings of the ordinary Courts of justice, reproduced under another name. During the last seven years, there have been several instances in which the affairs of insolvent companies have, from their vastness and intricacy, been referred by special Act of Parliament to the arbitration of individuals, who were in every case retired Lord Chancellors—in one instance an eminent lay Peer being joined with an ex-Chancellor. These arbitrators were invested with an absolute discretion; and their awards possess, so far as regards the subject-matters referred, the force and authority of a statute.

In my own opinion, the real cause of the delays in the administration of justice arises from, 1st, the want of a sufficient judicial force, especially in the Court of Chancery; and, 2nd, the occurrence of what are technically called, Vacations.

If there were more Chancery Judges, they might get through in chambers a great deal of work which is now taken in hand by their subordinates, with a necessary subsequent reference or appeal to themselves; and the Judges would be able to sit regularly in chambers during the day, instead of coming there after six hours of hard work, in a more or less exhausted condition of mind.

In the Taxing Master's offices, the great want is of assistant clerks, to do the routine work of checking lengths of documents, vouching disbursements, and the like. In the answers furnished by the Incorporated Law Society to the Judicature Commission already referred to, it was stated that, in their opinion, it would be advantageous to the suitor to consolidate the duties of the Taxing Master and Chief Clerks, and that as much as practicable of the business relating to the same suit should be transacted before one officer and his staff, who would for the most part have the whole circumstances of the particular case within his own knowledge, and be accordingly better able to do justice to the suitor and the solicitor, than is arrived at under the present system.

Some change in regard to the vacations, will probably be effected by the new Judicature Act. The old division of the legal year into terms is abolished, and the Sovereign is empowered to make new regulations, on the recommendation of the council of Judges, in regard to the vacations to be observed—but, in the meantime, matters are to remain in *statu quo*—and we have no assurance that there is any intention of materially lessening the time, during which all legal business with which the Courts have to deal, (except that which is of a most pressing nature) is supposed to slumber. To many it seems remarkable, that there should be any period during which the machinery of justice is allowed to stand still. Banking and commercial business goes on without interruption throughout the year; the faculty of medicine has no adjournment during which only cases of the most urgent character can receive attention; land is bought and sold without reference to the signs of the zodiac into which the sun has entered; and the ministers of religion pursue their daily work, at all times and through all seasons. Themis is the only divinity, that seems to require a prolonged repose for her priests and acolytes. No doubt the Judges and their subordinates, like other people, require a holiday to recruit their powers, which are often severely tried; but, with a proper system of relays, there need be no cessation of judicial work throughout the year; while each Judge and official would have a fair amount of rest from his labours.

There is a considerable annual sum paid by way of pensions to retired Judges, and compensations for loss of offices which have been from time to time abolished. According to the Finance Accounts recently printed, the judicial pensions in Great Britain in the year ended the 31st of March last, amounted to 47,763*l.*, and in Ireland 19,509*l.* In the year ended the 31st of March last, the compensation for officers in the Court of Chancery amounted to 6,337*l.* 5*s.* 8*d.* The Rev. Thomas Thurlow, as Keeper or Clerk of the Hanaper, has 4,628*l.*, and in addition 398*l.* 10*s.* 11*d.* compensation as late Prothonotary, Court of Pleas, Durham; and 7,352*l.* 14*s.* 6*d.* as Patentee of Bankrupts, London. There are forty-eight persons receiving annual compensations for the abolished Courts of Requests, amounting to 6,643*l.* 9*s.* 4*d.*; one as much as 3,100*l.* a-year. The amount paid in the financial year ended the 31st of March as "compensations" to officers of the late Ecclesiastical Royal Peculiars, and other Testamentary Courts in England and Ireland (including 124*l.* 9*s.* paid in Ireland), was 75,830*l.* –*s.* 11*d.* Twelve officers of the late Marshalsea Court, receive in pensions 1,482*l.* a-year.

The compensations paid to Proctors, did not include the loss of office as practitioners in the Ecclesiastical Courts. Sir R. Phillimore has recently decided that they have still the exclusive privilege of practising there; and, as the race is rapidly dying out, the business must come to a standstill unless the Legislature applies a remedy, or the litigant parties are willing to conduct their cases in person.

My account of the Courts would be manifestly incomplete, if I omitted to refer to those officers, who are known to the public by the familiar names of Attorneys and Solicitors. These designations are more properly applied to them when engaged in the prosecution or defence of legal proceedings; but, as is well known, the larger part of their time is devoted to business unconnected with the Courts, and which abroad is conducted by notaries and *hommes d'affaires.*

There are between 10,000 and 11,000 attorneys and solicitors on the roll for England and Wales, who take out annual certificates to practise. Their remuneration is to some extent, though not entirely, regulated by a scale fixed at the beginning of the present century, and which, by making remuneration largely dependent on the length of documents, tended unwisely to encourage prolixity.

They are admitted to practise in the various Courts by the Judges, and are liable to be struck off the rolls for misconduct, by the same authority. Whether it is on the whole expedient to leave this very large power in the hands of dignitaries who are appointed from among the barristers, with whom the attorneys and solicitors are in constant intercourse, may be open to question. It cannot be alleged that in recent times the power has been used with undue severity; some perhaps might think it has been at times too leniently exercised; but a narrative introduced into an admirable biography of Lord Kenyon, which appeared some thirty years ago in the "Law Magazine," will show what power for mischief such authority, vested in an arbitrary and prejudiced, though well-meaning Judge, may confer. The narrative was as follows:—

"The effect of this intemperate mode of administering justice, " my memory recalls with painful recollection in the case of a " Mr. Lawless, an attorney and an honourable member of that pro- " fession. He was involved in the groundless and general proscrip- " tion of the day. Complaint was made to the Court against him " for some imputed misconduct, grounded on an affidavit which the " event proved was a mass of falsehood and misrepresentation; but " it being on oath, and the charges serious, it was thought sufficient " to entitle the party applying to a rule to show cause why " Mr. Lawless should not answer the matters of the affidavit. He " could have no opportunity of answering them till he was served " with the rule, and had obtained copies of the affidavits on which " it was granted. Natural justice would point out, and the practice " of the Court was conformable to it, that he should be heard in " answer to them before he was convicted. For that purpose a day " is given by the rule on which the party is to show cause, during " which time everything is considered as suspended. This indul- " gence was refused to Mr. Lawless, though the rule was obtained " on an *ex parte* statement before any opportunity was afforded him " to answer the charges, or to be heard in his defence. Lord " Kenyon, in addition to the common form of the Court's assent to " the application, which is in these words, addressed to the counsel: " 'Take a rule to show cause,' added 'and let Mr. Lawless be " 'suspended from practising, until the rule is disposed of.' He " happened to be present in Court when this unexampled judgment " was pronounced, and heard the sentence which led to his ruin; he " rose in a state of most bitter agitation. 'My Lord, I entreat you " 'to recall that judgment; the charge is wholly unfounded; sus- " 'pension will lead to my ruin; I have eighty causes now in my " 'office.' What was Lord Kenyon's reply to this supplicatory " appeal to him! 'So much the worse for your clients who have " 'employed such a man! You shall remain suspended until the " 'Court decides on the rule.'

"The rule came on to be heard at a future day, after the " affidavits on the part of Mr. Lawless had been filed. The charges " against him were found to be wholly without foundation, and " the rule was accordingly discharged. Mr. Lawless was in conse- " quence restored to his profession, but not to his character or peace "of mind. He sank under the unmerited disgrace to which he had "been subjected, and died of a broken heart."

It is not improbable that under changes which are in contemplation in relation to both branches of the legal profession, the government of our own body, and the power of suspension or removal from its ranks, may be entrusted to the Council of the Incorporated Law Society, just as the members of the bar are subjected to the authority of the several Inns of Court, which consist of persons of their own Order.

The appellation of "attorney" will cease to exist when the new Judicature Act comes into operation. After that event we shall, borrowing a term from the professional nomenclature of Scotland, become "Solicitors of the Supreme Court."

My paper, the preparation of which was undertaken originally at the instigation of your late President, while he filled the Chair, was intended only to have afforded statistical information in regard to our legal tribunals and course of procedure; but I have been led almost insensibly to touch upon the question of the sufficiency of our judicial force for the work assigned it, and my task has been rendered more difficult than I anticipated, from the want of facility for getting complete returns, and from the fact of there being a new Judicature Act coming into operation, the effect of which cannot be at present correctly estimated. Should these remarks, however, be in any degree instrumental in effecting improvements, or in initiating a movement in what I deem the right direction, I shall have reason to thank my friend for having induced me to take up the subject, and I shall feel that what little labour the work has cost me will not have been bestowed in vain.

APPENDIX.

Judicial Committee of the Privy Council.

The Committee is composed of the Lord President, the Lord Chancellor, the Archbishops of Canterbury and York, the Lord Justices of the Court of Appeal in Chancery, the Lord Chief Justices of the Queen's Bench and Common Pleas, the Lord Chief Baron of Exchequer, the Judges of the Court of Probate and High Court of Admiralty; also such Prelates as are Privy Councillors, and all Privy Councillors who have held any of the offices before mentioned, with four paid Judges and the following subordinate officers:—An Indian Assessor, a Clerk of Appeals, a Registrar, a Registrar in Admiralty and Ecclesiastical Causes.

CHANCERY.

Court of Appeal.		Rolls Court.	Vice-Chancellors' Courts.
THE LORD CHANCELLOR	THE LORDS JUSTICES	MASTER OF THE ROLLS	Three VICE-CHANCELLORS
A principal Secretary A Secretary of Presentations A Registrar in Lunacy A Serjeant-at-Arms	Two Secretaries	Three Chief Clerks A Chief Secretary A Secretary of Causes	Nine Chief Clerks (three to each) Three Secretaries (one to each)

In all seven Judges and twelve Chief Clerks.

Seven Taxing Masters in Chancery.

Seven Chief Clerks
Seven Junior Clerks

Three Clerks of Records and Writs, Chancery Lane.

Fifteen Subordinate Clerks

Chancery Registrar's Office.

Twelve Registrars
Fifteen Principal Clerks
Twelve Junior ,,
Two Entering ,,
Two Bag Bearers

Examiners' Office.

Two Examiners
Two Sworn Clerks

Masters in Lunacy.

Two Masters
Chief Clerk
Two Report Clerks
Three First Class Clerks
Six Second Class ,,

Office of Registrar in Lunacy.

Registrar
Chief Clerk
Three Junior Clerks

COMMON LAW.

Court of Queen's Bench.	Court of Common Pleas.	Court of Exchequer.
LORD CHIEF JUSTICE OF ENGLAND	LORD CHIEF JUSTICE	LORD CHIEF BARON
Five Puisne Justices Five Masters	Five Puisne Justices Five Masters	Five Puisne Barons Five Masters

In all eighteen Judges and fifteen Masters.

Master's Office.

Master's Clerk
Judgment Office Clerk
Rule Office Clerk
Writ Office ,,
Appearance ,,
Treasury ,,

Crown Office.

Queen's Coroner and Attorney
Master
Three Clerks

Common Pleas Office.

Chief Clerk
Judgment Clerk
Writs Clerk
Record Clerk

Exchequer Office.

Taxing Department, three Clerks
Judgment Department, three Clerks
Writ Department, three Clerks
Rule Department, three Clerks
Bail Department, three Clerks
Sealer of Executions

Miscellaneous.

Courts of Probate and Divorce and Matrimonial Causes.

Judge
Secretary
Four Registrars

Registry of Court of Probate.

Record Keepers
Sealer

Admiralty Court.

Judge
Secretary
Queen's Advocate-General
Admiralty Advocate
Queen's Proctor
Admiralty ,,

Registry.

Registrar
Assistant Registrar
Chief Clerk

Marshal's Office.

Marshal
Chief Clerk

Ecclesiastical Courts.

Court of Arches.

Dean of the Arches
Registrar
Apparitor General

Court of Faculties.

Master
Registrar
Two Deputy Registrars
Clerk and Record Keeper

Vicar-General's Office.

Vicar-General
Registrar
Record Keeper

The Bishop of London's Consistory Court.

Judge
Two Registrars
Apparitor
Deputy Apparitor and Record Keeper

Court of Bankruptcy.

Chief Judge
Senior Registrar
Five Registrars
Registrar for Arrangement Proceedings
Comptroller
Two Taxing Masters
Official Assignee
Receiver in Insolvent Estates
Superintendent Clerk of Records
Registry Office Clerk

Land Registry Office.

Registrar
Assistant Registrar
Chief Clerk
Registry of Judgments, Executions, &c., as charges on land

County Courts.

There are in all sixty Judges of County Courts, to each of which is attached a Registrar with Assistant Clerks.

Return of Proceedings in the Court of Chancery for the Year ending the 1st *day of November*, 1873.

Nature of Proceedings.	Appellate Courts.			Original Courts.				Totals.
	Lord Chancellor.	Lord Chancellor and Lords Justices.	Lords Justices	Master of the Rolls.	Vice-Chancellor Malins.	Vice-Chancellor Bacon.	Vice-Chancellor Wickens	
Pleas awaiting a hearing at the commencement of the year	—	—	—	—	1	—	—	1
Set down during the year	—	—	—	1	2	1	—	4
Heard "	—	—	—	1	3	—	—	4
Otherwise disposed of	—	—	—	—	—	—	—	—
Awaiting a hearing at the end of the year	—	—	—	—	—	1	—	1
2. *Demurrers* awaiting a hearing at the commencement of the year	—	—	—	2	6	1	9	18
Set down during the year	—	—	—	16	34	7	17	74
Heard "	—	—	—	13	30	6	13	62
Otherwise disposed of	—	—	—	2	1	1	—	4
Awaiting a hearing at the end of the year	—	—	—	3	9	1	13	26
3. *Exceptions to Pleadings* awaiting a hearing at the commencement of the year	—	—	—	—	—	—	3	3
Set down during the year	—	—	—	4	14	—	13	31
Heard "	—	—	—	4	12	—	9	25
Otherwise disposed of	—	—	—	—	1	—	2	3
Awaiting a hearing at the end of the year	—	—	—	—	1	—	5	6
4. *Motion for Decree* awaiting a hearing at the commencement of the year	—	—	—	94	54	54	75	27
Set down during the year	—	—	6	329	434	168	366	1,30
Heard "	—	—	6	285	305	129	263	98
Otherwise disposed of	—	—	—	17	76	7	68	16
Awaiting a hearing at the end of the year	—	—	—	121	107	86	110	44
5. *Causes* awaiting a hearing at the commencement of the year	—	—	—	36	23	12	20	9
Set down during the year	—	—	—	46	47	40	56	18
Heard "	—	—	—	39	17	19	30	10
Otherwise disposed of	—	—	—	6	25	2	18	5
Awaiting a hearing at the end of the year	—	—	—	37	28	31	28	12
6. *Special Cases* awaiting a hearing at the commencement of the year	—	—	—	1	9	—	11	
Set down during the year	—	—	—	1	6	1	6	
Heard "	—	—	—	2	5	—	11	
Otherwise disposed of	—	—	—	—	2	—	—	
Awaiting a hearing at the end of the year	—	—	—	—	8	1	6	

Return of Proceedings in the Court of Chancery—Contd.

Nature of Proceedings.	Appellate Courts.			Original Courts.				Totals.
	Lord Chancellor.	Lord Chancellor and Lords Justices.	Lords Justices.	Master of the Rolls.	Vice-Chancellor Malins.	Vice-Chancellor Bacon.	Vice-Chancellor Wickens	
Causes and Matters for further directions and further consideration awaiting a hearing at the commencement of the year	—	—	—	30	25	18	29	102
Set down during the year............	—	—	—	182	141	77	204	604
Heard ,, ...	—	—	—	182	135	84	207	608
Otherwise disposed of	—	—	—	3	1	—	1	5
Awaiting a hearing at the end of the year	—	—	—	27	30	11	25	93
Rehearings and Appeals awaiting a hearing at the commencement of the year	—	—	40	—	—	—	—	40
Set down during the year............	—	—	79	—	—	—	—	79
Heard ,, ...	13	28	58	—	—	—	—	99
Otherwise disposed of	—	—	10	—	—	—	—	10
Awaiting a hearing at the end of the year	—	—	10	—	—	—	—	10
Appeal Motions awaiting a hearing at the commencement of the year	—	—	17	—	—	—	—	17
Set down during the year............	—	—	96	—	—	—	—	96
Heard ,, ...	3	25	59	—	—	—	—	87
Otherwise disposed of	—	—	5	—	—	—	—	5
Awaiting a hearing at the end of the year	—	—	21	—	—	—	—	21
Appeals from County Courts awaiting a hearing at the commencement of the year	—	—	—	—	5	—	—	5
Set down during the year............	—	—	—	—	13	—	—	13
Heard ,, ...	—	—	—	—	13	—	—	13
Otherwise disposed of	—	—	—	—	1	—	—	1
Awaiting a hearing at the end of the year	—	—	—	—	4	—	—	4
Appeals from the County Palatine of Lancaster awaiting a hearing at the commencement of the year	—	—	2	—	—	—	—	2
Set down during the year............	—	—	2	—	—	—	—	2
Heard ,, ...	—	—	4	—	—	—	—	4
Otherwise disposed of	—	—	—	—	—	—	—	—
Awaiting a hearing at the end of the year	—	—	—	—	—	—	—	—
Appeals from the Vice-Wardens of the Stannaries awaiting a hearing at the commencement of the year	—	—	1	—	—	—	—	1
Set down during the year............	—	—	2	—	—	—	—	2
Heard ,, ...	—	—	3	—	—	—	—	3
Otherwise disposed of	—	—	—	—	—	—	—	—
Awaiting a hearing at the end of the year	—	—	—	—	—	—	—	—

Return of Proceedings in the Court of Chancery—Contd.

Nature of Proceedings.	Appellate Courts.			Original Courts.				Totals.
	Lord Chancellor.	Lord Chancellor and Lords Justices.	Lords Justices.	Master of the Rolls.	Vice-Chancellor Malins.	Vice-Chancellor Bacon.	Vice-Chancellor Wickens	
13. *Trial with a Jury* awaiting a hearing at the commencement of the year	—	—	—	—	—	—	—	—
Set down during the year	—	—	—	—	—	—	—	—
Heard ,,	—	—	—	—	—	—	—	—
Otherwise disposed of	—	—	—	—	—	—	—	—
Awaiting a hearing at the end of the year	—	—	—	—	—	—	—	—
14. *Trial without a Jury* awaiting a hearing at the commencement of the year	—	—	—	—	—	—	2	2
Set down during the year	—	—	—	1	—	—	—	1
Heard ,,	—	—	—	—	—	—	1	1
Otherwise disposed of	—	—	—	1	—	—	1	2
Awaiting a hearing at the end of the year	—	—	—	—	—	—	—	—
15. *Orders* made on the hearing of *Appeal Petitions*	—	—	5	—	—	—	—	5
16. *Orders* made on the hearing of *Petitions under the Companies Acts* 1862 *and* 1867	—	—	—	31	50	17	12	110
17. Orders made on the hearing of other petitions	—	—	—	473	825	349	521	2,168
18. Orders made on the hearing of special motions	—	6	20	468	743	199	316	1,752
19. Orders made in chambers on summonses drawn up by the registrars	—	—	—	2,334	2,854	1,238	2,612	9,038
20. Orders made in court on matters adjourned from chambers	—	—	—	147	40	61	49	29
21. Orders on motions on petitions of course	125	—	—	166	76	43	86	49
22. Certificates for sale or transfer, or delivery of stock or other securities	4	3	19	1,090	1,116	1,042	605	3,87
23. Cases standing for judgment at the commencement of the year	—	—	—	—	—	—	1	
24. Cases standing for judgment at the end of the year	—	—	—	—	1	—	—	

Return of Proceedings in the Court of Chancery—Contd.

Nature of Proceedings.	Appellate Courts.			Original Courts.				Totals.
	Lord Chancellor.	Lord Chancellor and Lords Justices.	Lords Justices.	Master of the Rolls.	Vice-Chancellor Malins.	Vice-Chancellor Bacon.	Vice-Chancellor Wickens	
5. Number of days each of the judges sat in court during the year	25*	51	117†	168‡	177	146§	175‖	—
6. Number of causes, &c., transferred from each judge to other branches of the court, viz.	—	—	—	—	—	—	—	—
Judge from whom transferred	—	—	—	—	100	—	80	180
" to "	—	—	—	100	—	80	—	180
7. Number of cases referred to the conveyancing counsel of the court	—	—	—	—	—	—	—	—

* In addition, the Lord Chancellor sat one day on the Judicial Committee of the Privy Council, and twenty days in the House of Lords on the hearing of appeals.

† In addition the Lord Justice James sat two days, and the Lord Justice Mellish twenty-two days on the Judicial Committee of the Privy Council.

‡ Of these days the Lord Chancellor sat seventy-one days for the Master of the Rolls.

§ In addition the Vice-Chancellor Bacon sat thirty-one days as chief judge in bankruptcy.

‖ Of these days the Lord Justice James sat twenty-nine days for the Vice-Chancellor Wickens.

COURT OF CHANCERY.

Business Disposed of in Year ending 1st November, 1873.

Pleas and Demurrers	70
Exceptions to Pleadings	28
Motions for Decree	1,156
Causes	156
Special Cases	20
Further Directions	613
Rehearings and Appeals	208
Appeals from County Courts	14
Orders on Petitions, Motions, and Adjournments from Chambers, being business of the summary jurisdiction	4,828
Total	7,093

Business awaiting a Hearing at the End of 1873.

Pleas	1
Demurrers	26
Exceptions to Pleadings	6
Motions for Decree	444
Causes	124
Special Cases	15
Causes and matters for further directions and consideration	93
Rehearings and Appeals	10
Appeal Motions	21
Appeals from County Courts	4
Causes standing for Judgment	1
Grand total	745

Court of Chancery. Chamber *Business.*

Nature of Proceedings.	Total of all the Chambers.									
	Number.					Amount. [000's omitted.]				
	1868.	1869.	1870.	1871.	1872.	1868.	1869.	1870.	1871.	1872.
Number issued of summonses to originate proceedings, viz.—						£	£	£	£	£
For the administration of estates	362	388	479	448	447	—	—	—	—	—
Under the Charitable Trusts Acts	4	9	17	8	10	—	—	—	—	—
For the appointment of guardians and maintenance of infants	153	172	149	144	186	—	—	—	—	—
For other purposes	264	328	276	256	243	—	—	—	—	—
Number issued of summonses, not being summonses to originate proceedings	26,191	26,271	26,644	26,809	26,750	—	—	—	—	—
Number of orders made, viz.—										
Of the class drawn up by the registrars	8,381	8,761	9,104	9,779	9,877	—	—	—	—	—
Of the class drawn up in chambers	9,998	9,678	9,287	9,223	9,661	—	—	—	—	—
Number of orders brought into chambers for prosecution, other than orders for winding up companies	2,043	2,164	2,241	2,267	2,255	—	—	—	—	—
Number of orders brought into chambers for winding up companies	93	68	101	63	57	—	—	—	—	
Number of advertisements issued	1,057	1,089	1,205	1,175	1,093	—	—	—	—	
Number of debts claimed and adjudicated on	11,584	18,417	18,425	21,210	19,156	—	—	—	—	—
Amount of debts proved	—	—	—	—	—	6,980,	9,685,	7,228,	4,662,	4,092,
Number of contributories after argument included in lists of contributories	9,263	3,568	5,342	9,649	9,149	—	—	—	—	—

Court of Chancery. CHAMBER *Business—Contd.*

Nature of Proceedings.	Total of all the Chambers.									
	Number.					Amount. [000's omitted.]				
	1868.	1869.	1870.	1871.	1872.	1868.	1869.	1870.	1871.	1872.
						£	£	£	£	£
Number of contributories excluded from lists of contributories..........	479	582	303	595	640	—	—	—	—	—
Amount of calls made under orders for winding up companies	—	—	—	—	—	8,537,	3,818,	2,084,	1,972,	429,
Amount of dividends ordered to to be paid to creditors..................	—	—	—	—	—	2,963,	3,533,	2,210,	944,	247,
Amount ordered to be refunded to contributories	—	—	—	—	—	24,	9,	16,	125,	301,
Number of accounts passed, other than receivers' accounts	1,488	1,417	1,918	1,946	1,837	—	—	—	—	—
Amount of receipts therein	—	—	—	—	—	11,929,	6,718,	12,677,	9,881,	8,165,
Amount of disbursements and allowances therein	—	—	—	—	—	11,322,	5,859,	11,554.	8,701,	6,414,
Number of receivers' accounts passed	758	733	790	757	894	—	—	—	—	—
Amount of receipts therein	—	—	—	—	—	6,731,	3,198,	3,061,	2,776,	2,591,
Amount of disbursements and allowances therein	—	—	—	—	—	5,154,	2,501,	3,251,	2,404,	2,022,
Number of sales of estates under orders of court....	750	618	672	756	746	—	—	—	—	—
Amount realised by sales of estates	—	—	—	—	—	2,339,	2,526,	1,987,	2,569,	2,880,
Number of titles and other matters directed to be investigated by the conveyancing counsel	456	495	540	567	561	—	—	—	—	—
Number of certificates filed	2,572	2,639	2,952	2,949	2,837	—	—	—	—	—
Number of appointments (by summonses, adjournment or otherwise) disposed of	68,313	70,115	74,006	74,199	75,534	—	—	—	—	—
Number of orders under which accounts and inquiries were pending at date of return	3,465	3,999	3,760	4,069	4,595	—	—	—	—	—
Number of orders for winding up companies then pending	438	493	575	581	598	—	—	—	—	—

COMMON LAW.

Business in Banco Disposed of during 1873.

	Queen's Bench.	Common Pleas.	Exchequer.	Total of Three Courts.
Motions for New Trial, &c.	210	173	231	614
Other Special Motions, Demurrers, and Special Cases	238	226	248	712
Total	—	—	—	1,326
Number of Nisi Prius Causes tried in 1873 .... (*London and Middlesex*)	405	441	456	1,302
Grand total	—	—	—	2,628
Number of Causes *entered* for trial in 1873 .... (*London and Middlesex*)	905	774	897	2,576

Arrears of Business in Banco at End of Michaelmas Term, 1873.

	Queen's Bench.	Common Pleas.	Exchequer.	Total of Three Courts.	Exchequer Chamber Court of Appeal from Three other Courts.
Motions for New Trials, &c.	76	29	40	145	6 cases for argument
Special Cases and Demurrers	20	16	33	69	2 cases for judgment
Other Special Motions	9	7	1	17	—
Cases standing for Judgment	3	5	2	10	—
Total	—	—	—	241	8

Remanets of Nisi Prius Causes (*London and Middlesex*) *at End of Year* 1873.

Queen's Bench.	Common Pleas.	Exchequer.	Total.
150	26	14	190

Total arrears of business in Banco	249
" Nisi Prius {London and Middlesex ....}	190
Grand total	439

DISCUSSION *on* MR. JANSON'S PAPER.

MR. LUMLEY said, he was by no means satisfied that the delay in courts of law, necessarily arose from any incompetency of the judges, either in point of numbers or attention. Much time was necessarily occupied by the various incidents connected with the investigation of the cases. Where the matters in dispute arose in distant parts of the world, it could not be expected that a settlement should be come to in a few weeks or even months; again, an intricate partnership could not be unravelled without a long and tedious inquiry, which must of necessity postpone the decision as to the rights and merits of the different parties, for a considerable time. Mr. Janson had given a very full and complete account of the proceedings in the superior courts, but he had made no reference to the enormous amount of business transacted, promptly and satisfactorily, in the county courts. Many cases, which formerly would have been tried with no small amount of delay in the superior courts, were now removed to the domestic tribunals, which were within easy reach of the litigant parties, and where disputes were settled at very little trouble and cost. In the paper, a comparison had been drawn between the number of judges at common law and at chancery; but that difference in number arose from the system which had prevailed from ancient times, of permitting one judge in chancery to dispose of any matter coming before him, whereas in courts of law, three or four judges were always required to decide disputes. Whether the one system or the other was most advantageous was a matter of considerable doubt. He himself was disposed to think that one judge was not enough, while four were too many. Much was to be expected from the new constitution of the courts under the Judicature Bill, but, it would, perhaps, have been better if the old designations of the courts had been got rid of, or if they had been simply treated as divisional courts. Another branch of business was omitted from the paper, namely, that of the criminal courts, which occupied so much of the time of the judges. This was a serious matter, because it took away the attention of the judges and the officers attached to the courts from the civil business. A great many matters disposed of in the criminal courts were of a mixed character, much more civil than criminal, yet they were treated in a *quasi* criminal manner, such as the proceedings for establishing municipal rights, and many of the questions which arose before magistrates and the courts of quarter session. Such cases very largely increased the demand upon the time of the judges. The legislature had recently thought it right to attempt to establish a new court of a very mixed character, composed partly of a lawyer and partly of laymen, who were to decide in a certain judicial manner those grave questions which were continually arising, between parties more or less interested in matters connected with railways. There were some other authorities, such as the chief officers of some of the public departments of the State, on whom the legislature had cast the duty of deciding matters in a judicial manner, which in former times would have been considered in a court of law. The legislature had thus been endeavouring to lighten the business of the courts of law, while at the same time other courts had been constituted, in which matters were disposed of totally different from any with which our forefathers were acquainted. The divorce court had only existed about twenty-five years, yet it appeared to have almost as much business for its judge to decide, as any of the common law courts. Whether such a court was beneficial to the morality of the country, or advantageous in any other way, he could not say; but the business there transacted showed how the increasing wealth and population of the country, augmented the demands made upon the judicature.

MR. W. J. BOVILL, Q.C., said it would be extremely satisfactory to all practitioners, as well as to the public, if some definite notion could be propounded as to how the delays were to be avoided. These delays were the bane of solicitors, the bar, and the judges, but they were all puzzled to find a remedy. Apparently improvement could be effected only in one of two ways, either by an increase in the judicial staff, or by a redistribution of the business. One great objection which the public would have to an increase in the number of judges, was, that it would necessarily increase the national expenditure. The amount of work got through by the chancery judges, was simply enormous. According to the figures in Mr. Janson's tables, during 1873 2,168 orders were made on the hearing of petitions, 1,752 on special motions, 9,038 in chambers on summonses drawn up by the registrars, 297 in court on matters adjourned from chambers, in all more than 13,000 orders by seven judges, This was an amount of work which no other profession had accomplished; and if the business increased, as it necessarily must with the wealth of the country, he did not know how it could be got through without an increase of the judicial staff. If the redistribution of business contemplated under the new Judicature Act, only perpetuated the old rules and regulations, so that the work would continue to be conducted in the old channels, though under different names, no benefit whatever would ensue. There must be either a thorough redistribution of the business, or an increase of the judicial staff, whichever the public chose. He, however, looked with considerable satisfaction upon the tables of the work done by the court of chancery, for they showed that the work had been done in a most efficient manner. A great deal of it too was done in a very rapid manner, and without any delay whatever, as, for instance, injunctions to restrain wrongful acts, such as interference with ancient lights, and waste or destruction of property. Within certain limits, the action of the court of chancery was more prompt, effective, and decisive than that of any other tribunal in the world. It could not be evaded where it was properly exercised, and it effectually remedied evils before they reached a height too great for remedy. It was a court that was always open for the transaction of urgent necessary business and the staying of injustice. The judges of the courts of common law also did their work as effectually and ably as any judges possibly could, and when it was remembered that the tables contained no account of the criminal or county court business, it must be acknowledged that the judicial staff, far from being idle or causing delay, did an amount of work almost unparalleled in the judicial statistics of any other country. He knew, from experience, that delays occurred in other countries as well as in England,—in France, Belgium, Prussia, South America; but they were often occasioned by the parties themselves, though the courts got all the abuse.

Mr. J. T. **Hammick** rejoiced that these important questions were now regarded by the light of statistics. He considered that a great waste of judicial power took place in the common law court. Disputes of a trivial kind were continually tried at Westminster, or at the Guildhall, and the "Judicial Statistics" showed that nearly two-thirds of the causes tried in the courts at Westminster, and at *nisi prius* on circuit, resulted in verdicts of less than 100*l*. Many of such cases might well have been decided in the county courts. The judicial power of the superior courts was also wasted, where a jury was empanelled to try causes that did not admit of being satisfactorily determined by a jury, causes in which the facts admitted of very little doubt, but in which questions of law were almost exclusively involved. There was an Act of 1 Wm. IV, by which the sittings after term were limited to twelve days in Middlesex, and twelve in London; and the result was that frequently at Guildhall, although important mercantile cases were down on the paper for trial, comparatively trivial cases, which might be brought from any part of England, stopped the way. As a consequence, the important causes could not be tried, the parties were wearied out, and were often glad to settle their disputes out of court. The Act limiting the sittings in that way led, in fact, to a denial of justice to litigants who had in vain incurred the expense of getting ready for trial. With regard to the divorce court, he considered that that court afforded relief only where it was much wanted, without in any way assailing the great basis of society, the institution of marriage; for, as compared with the total number of marriages, the petitions for divorce were perfectly insignificant. Every year about 200,000 couples were married in England, while the petitions for divorce were only about 300, and the marriages actually dissolved were represented by a still smaller number.

Mr. R. B. MARTIN asked the author of the paper under what conditions a common law judge could be called upon to sit as assessor to a bishop.

Mr. JANSON said he believed it was a voluntary act on the part of the judge, though the request usually came in a form which scarcely admitted of refusal.

Mr. R. B. MARTIN: In the new Judicature Act is any provision made for consolidating the laws of England and Scotland?

Mr. JANSON: No.

Mr. JOHN BREWER said he regarded the Judicature Act with great favour, as he hoped that it would remedy some of the abuses which had so long prevailed. If the business of the law courts were properly managed, not only would the clients be better satisfied, but the profession would be benefited. Nothing could be more depressing to a practitioner than the delays which now occurred, but he believed that the new Act would work a revolution in this respect. He did not think the present staff of judges and subordinate officers was too small, for if that staff were properly organised and brought into more effective contact with the work itself, that is, with the issues to be tried, the business would be disposed of within a reasonable period. He calculated that at least 50 per cent. of the business which clients entrusted to attorneys was transacted in the attorney's office, and of the remainder about 30 or 40 per cent. was disposed of with the assistance of barristers, whilst only about 10 or 20 per cent. of the whole legal business of the country came before the courts; and the true remedy for the delays would be by shortening the style and lessening the number of pleadings. A large amount of business might also be disposed of in the county courts and by the magistrates, and a great deal both of civil and criminal business should be withdrawn from juries. He ventured to say that in 90 per cent. of the cases tried before a judge and jury, the judge and the jury were at one as to the verdict, whilst the majority of the remaining cases involved questions of law or new trials. He, therefore, considered that in most cases juries were quite unnecessary. Even where it was desirable to have a jury he would prefer a less number than twelve, for in complicated cases the verdict of so many was really a matter of chance. He had heard of one case in which the jurors had written down on separate pieces of paper the amount of damages which they desired to give, and the figures ranged from 5*l.* to 5,000*l.* The average was taken as the verdict, and he believed that system was a common custom. In another case he knew of sixty-two years' litigation, flowing from contradictory verdicts on the same issue, which it was eventually thought should not have been submitted to a jury at all, the matter being really a question of law on the construction of documents. He thought it would be advantageous to adopt the chancery mode of procedure, but in a simplified form, and then to apply it to all matters of litigation, whether of law or equity, particularly having regard to the fusion-principle of the new Judicature Act. A simple plaint, devoid of verbiage, should be drawn up, an answer should be made, and large powers of discovering documents and interrogating parties granted, and then the witnesses should all be subject to *vivâ voce* examination and cross-examination in open court, but they should have the right to refer to their notes and documents just as counsel could. The cause should then be tried before three judges, with power to resort to one simple permanent court of appeal, consisting of seven or eight of the best judges of the land, and their decision should be final.

Mr. S. Shaen admitted there were imperfections in trial by jury, and mentioned a case he had known where a jury agreed to deliver as their unanimous verdict whatever eight should agree to; and in assessing damages, divided by twelve, the total of the sums named by each, and eventually fixed the amount at half that quotient. Still he thought it would be very short-sighted policy to abolish trial by jury. On election petitions, judges sitting alone had evinced a lack of moral courage, which would not have been shown by juries, summoned for the occasion and directed by a judge. He believed also that a great deal of injustice was done in short causes in county courts where the judges cut the evidence short as soon as they had got an idea in their minds, but which would have been corrected if they had waited to hear all the facts, as they would if a jury had been sitting with them. In the Court of Chancery, all the facts being detailed in writing, equally insured their consideration. It also saved the time of the court. The counsel went through the whole documents, and laid only those statements that were material and were evidence before the judge, who was thus able to give his decision at once. As to delays they were real enough, but he maintained that it was only in small parts that they arose, through the nature of the proceedings, but they did so largely by the counsel or attorneys making arrangements for one another's convenience.

Mr. Lewis Emanuel said, no doubt any proposal for the immediate and entire abolition of trial by jury would meet with much opposition, but great benefit would accrue to the public if common law causes were tried before a judge alone, in every case in which neither plaintiff nor defendant demanded a jury. Englishmen had learnt to place such implicit confidence in the ability, the integrity, and the impartiality of their judges, that suitors, as a rule, would prefer *their* decision to that of the best possible jury. In the county courts, which disposed of a large portion of the legal business of the country, a jury was not summoned except at the special instance of one of the litigants, and statistics showed that the percentage of cases in which this option was exercised was ridiculously small. If trial before the judge alone gave so much satisfaction in the county courts, why should not the system be extended to the supreme court of judicature about to be established? To a certain extent it was well for society that law should be regarded as a luxury, as a restraint was thereby imposed on frivolous and vexatious litigation. In some of the States of America justice had been made too cheap, the result was that every paltry dispute, every slight offence, whether by act or word, was made the occasion for a lawsuit. The examination of witnesses should always be *vivâ voce* in open court, for not only does the presence of the judge, the bar, and the press exercise a wholesome influence on the advocate as well as the witness, but the demeanour of the latter in the witness-box will frequently afford one of the best tests of his veracity.

Mr. Janson, in reply, said that Mr. Lumley appeared to attach great value to the local tribunals, but his own experience of the working of the county courts was most unfavourable. He imputed no want of learning or sound judgment to the judges of those courts, but the system upon which they were established was most faulty. In a very large number of cases of debt the plaintiffs were the great London dealers, whose debtors were scattered all over the country, and the creditors were obliged to go into the different localities where the debtors were living, in order to establish their claims. In the majority of smaller cases, time for payment by instalments is given, and in very many nothing was eventually recovered. At the very outset, the plaintiffs had to make a much larger outlay than in the superior courts, and the defendants also found the fees to be considerably heavier. The facilities which these minor courts afforded for instituting proceedings against persons in the higher ranks of society, were abused. The compulsory jurisdiction of the county courts, should be limited to cases where the litigants live within ten or twelve miles of each other. What was really wanted was a larger number of judges, of the same stamp and character as those we get in the superior courts of the country; for if the county courts were multiplied, or district courts were established, the judiciary and the bar would deteriorate, and the attorneys and solicitors would be of an inferior grade to the generality of those now practising. He concurred in the suggestion that divisional courts would afford a very satisfactory method of dealing with cases, and if a sufficient number could be established business would be much more rapidly disposed of, and then the odious and ridiculous system of requiring the unanimous assent of twelve other people to the decision might be dispensed with. In the earlier days of English history, no doubt, trial by a jury of peers was very important to the subject, for judges were corrupt, and in criminal cases the accused was placed at a great disadvantage; but, with an incorruptible justiciary and public opinion brought to bear upon everything that took place, surely decisions on questions of law and fact might be left to the judges, without the absurd appendage of twelve jurymen. In comparing the amount of work done at common law and in chancery, it should not be forgotten that a great deal was got through at common law in chambers, where business was much more summarily disposed of, than in the chambers of the chief clerks. One judge ought to sit every day in chambers. With regard to the limitation of the sittings after term, and the inconvenience of having important mercantile cases postponed to cases of inferior importance, the classification into special and common jury cases had been made expressly to meet that difficulty.

The CHAIRMAN stated that, as the discussion had taken the direction of trial by jury, he regretted the absence of a friend who had large experience as registrar of a county court, and who would have stated how rarely litigants in that court availed themselves of the option to be tried by jury; and, further, that as a rule, the persons who made that choice were conscious of having a bad case. Trial by jury had arisen out of a state of things that had now passed away. Juries who were originally witnesses had been transformed into judges; and it was quite possible that the belief in a jury as a mode of trial indiscriminately applicable to all sorts of cases, might come to be looked upon as an antiquated prejudice.

STATISTICS *of* AUSTRALASIAN BANKING.

By NATHANIEL CORK, ESQ., F.R.G.S.

[Presented to the Statistical Society on the 17th of March, 1874.]

I.

IT would be scarcely possible for any Governments to have had prepared and published more elaborate statistics of the condition and progress of the social state of their peoples, than have the Governments of the principal Australasian Colonies.

The statistical department of the Board of Trade, Whitehall, has, since 1857, collected and classified these statistics, so far as they related to the exports and imports, population, revenue, loans, and shipping, but I am not aware that the banking returns of the several colonies have ever been collected for the purpose of publication.

The neglect by statisticians of this important field has not arisen from the absence of reliable data, but probably from the time and labour involved in collecting returns from the colonies. For home purposes, the returns would only be valuable as they might represent the aggregate banking figures of the whole of Australasia. It is with this object that the present paper has been prepared, and although the tables which have been compiled are not complete in every respect, they will save subsequent investigators much labour, and will enable us to form a pretty correct idea of the exchanges between the Australasian colonies, and the mother country. The subject is inviting, first, on account of the importance which is now attached to the regular transmission of bullion from Australia, and secondly, from the vast material interests which England holds in the southern colonies.

In the year 1840 the Council of the colony of New South Wales passed an Act (4 Vict., No. 13) requiring from all the banks of issue a quarterly statement, furnishing, under certain and well-defined headings, the average returns of the previous three months, compiled from the weekly balance sheets. The penalties for neglecting to render accounts, or for giving false returns, were 500*l.* on the company, and 100*l.* on the manager for each offence. Since the passing of the Act these returns have been regularly published in the colonial gazettes. The other colonies of the group, as they became established, adopted this excellent measure, and it is from these returns that Table No. I has been compiled. The quarterly return taken is that of 31st December in each year. Victoria and

New South Wales from 1863 to 1872. New Zealand, South Australia, and Queensland from 1868 to 1872. From Tasmania I have one return only, that of 31st March, 1873, and from Western Australia I have no return. The absence of this, however, will not materially affect the value of our totals, as Western Australia is the least important colony, having only a population of 16,000. The returns of capital and profits from New South Wales and Victoria only are given in the table *in extenso*. To have presented the aggregate of these returns from all the colonies, would have been very illusory. The gazette returns state the whole of the profits of each bank, whether they be made in or out of the particular colony, and as seven of the banks in Sydney, and eight in Melbourne, have establishments in other colonies, it follows that to have tabulated the total capital and profits from each of the colonies, would have been simply to have presented the figures of eight or nine large banks several times over. But these figures, as published in the Victorian or New South Wales Gazettes, may be regarded as a fair sample of the whole.

The gazette returns, however, by themselves, would throw no light whatever on the exchange operations, between the colonies and the United Kingdom. To arrive at this knowledge it is necessary to bring together the aggregate balance sheets of the banks, as these represent in most cases not merely the colonial liabilities and assets, but the position on this side, as well as the remittances *in transitu*. If it were possible to obtain, instead of the average returns as now published in the gazettes, the returns of a particular day from all the colonies, and for the same day to have the aggregate balance sheets of all the banks, the differences between the two tables would show us exactly the extent of the exchange operations between Great Britain and the Australian colonies. But as that is quite impracticable, the next thing to be done is to obtain the aggregate balance sheets within the period of the gazette averages, or as near to the date as may be possible, and then to adjust the two tables with all the help which banking experience can throw on the subject. But here again we are met by a difficulty: an important bank, the Oriental, has even a larger Eastern business than it has Australian. Its aggregate balance sheet, therefore, is of no use for our purpose, and we must adopt its gazette returns as published in Melbourne and Sydney, gathering the capital it employs in the colonies, from the difference between its colonial assets and liabilities. Under the same division I include the figures of the Tasmanian banks, as they have no establishments out of Tasmania, and as I have been unable to obtain their balance sheets. In the same table are also included the figures of two banks, not banks of issue, and therefore not included in the gazette returns. These aggregate returns will be found in Table No. II.

But the aggregate balance sheets must also be taken with some qualifications, as, unfortunately for our purpose, there are scarcely two of them constructed upon the same method. The aggregate balance sheets of some banks represent the colonial figures of a certain date, incorporated with the London balances of three months earlier. On the other hand, the Anglo-Australian banks incorporated with the London accounts, the colonial balances for an earlier date by six months. A third class again, including some important colonial companies, omit from their reports the London liabilities and assets altogether, and merely include the debit and credit balance, as the case may be, of their London agency. To meet these difficulties, it is necessary to compute certain additions which must be made to the totals of the aggregate balance sheets. To show these computations I have constructed Table III, and I have added thereto an adjustment of the gazette returns with the grand totals. That table will speak for itself, and it is not necessary for me here to explain each line. But I would point out as evidence that Tables I and II are conformatory, and more nearly correspond than might have been expected; that the note circulation in the two tables only differs by 23,000*l.*; and that the asset "Landed "property and Bank premises" differs by 97,000*l.*, which amount doubtless represents the exact sum at which the house property in London stood in the balance sheets. In adjusting col. 5, "Coin "and Bullion," I have had to deal with a difference of 3,029,000*l.* Of this amount 2,039,000*l.* was in course of transit from the colonies to London on the 31st December, 1872, and we have thus a balance of 990,000*l.* difference to deal with. In any other year than 1872, that sum would readily have been accounted for, as being the increase of gold held by banks in the colonies on the 31st December, over the average of the quarter. Ordinarily the shipments of gold fall off towards the end of the year, as then the shipments of wool commence, and thus the necessity of shipping gold for the exchanges is saved. But the year we are dealing with, was exceptional. The increase of exports from the United Kingdom to Australasia in 1872 over 1871 was 4,369,062*l.*, but so great had been the increase in the value of the homeward shipments of colonial produce that it was not until the last quarter of 1872, that the surplus specie that had accumulated in the colonies, had to be shipped, to restore the balance of exchange. In the colony of New South Wales, in the third quarter of 1872, the average amount of coin and bullion held by the banks was 3,145,323*l.*, the highest average attained. In the last quarter the average fell off by 166,000*l.* It is evident, therefore, that 990,000*l.*, which we cannot appropriate, must not be attributed to an increase of bullion held on 31st December, over the average of the quarter. The discrepancy is only to be explained by the circumstance that the balance sheets of several of the most important banks (see Table II) were made up on 30th September. The inference is, that the stock of coin and bullion held by those banks was reduced in the last quarter of 1872 by 990,000*l.*, and this is borne out by the colonial gazettes.

The item of 5,000,000*l.* for bills held in London drawn on United Kingdom, and for same class of bills in transit, must also be explained, as it happens that on the 31st of December, probably the amount held in London would be small, but the amount *in transitu* would be larger than at any other period of the year. The bills drawn against the produce of the previous season would have run off, and the large amount drawn against shipments of wool afloat, would not yet have been accepted. With regard to the estimated amount of cash at call, or at notice, held in London on the 31st of December, 1872, viz., 4,562,000*l.*, I may point out that in the course of that year Australian capital accumulated in London to the amount of some millions, and the value of money being higher in London than in the colonies, the banks had no inducement to draw their balances.

The same causes have continued in operation until within the last few months, and Mr. Hamilton,* the chairman of the bank of Australasia, when speaking at the meeting of that bank in March last, was probably within the mark, when he expressed his belief that 12½ per cent. of the banking resources of Australia, were held in this country.

II.

Having endeavoured to explain the figures before us, I now propose to discuss them.

If we compare the total liabilities of the banks for the five years ending 1868, we find that during that period the banking business of New South Wales made no advance. The trade of the colony also, during that period was not progressive, for both in 1863 and 1868 the total exports and imports amounted to 15¼ millions.

But during the second part of the decade ending 1872, the banking liabilities of the colony increased from 7,533,690*l.* to 10,397,605*l.* = 2,863,915*l.*, or 38 per cent., and trade grew to a corresponding extent.

The experience of the neighbouring colony, Victoria, has been different. During the first five years her banking liabilities increased by 2¾ millions = 31 per cent., and during the second period from 11,679,163*l.* to 13,935,047*l.* = 19 per cent. The increase for the latter five years on the total banking liabilities for the five principal colonies has been from 25,793,686*l.* to 32,920,799*l.* = 7,127,000*l.*, or 27½ per cent. With this growth of business there has been a large increase of banking capital. In 1863 the banks having establishments in Victoria showed capital and reserved profits amounting to 8,231,090*l.* In 1872 these items had increased by 2,216,865*l.* = 27 per cent. But the profits have shown no such increase. In 1863 the half-yearly dividend of the banks having establishments in Victoria, was 402,200*l.*; in 1865 it had increased to 505,066*l.*; in 1870 it had fallen to 417,500*l.*; and has since shown no material improvement. This is instructive, as it shows that notwithstanding the great increase of business and of capital employed, the actual banking earnings are less. What is true of Victoria, applies more or less to all the other colonies. Comparing the Victorian returns of the beginning with the end of the decade, the increased dividends only amounted to 39,200*l.* on the year, and this sum on 2,216,865*l.* increased capital employed, only gave the shareholders a return of 1¾ per cent. on that additional capital. I find that the total shareholders' money, *i.e.*, paid-up capital and reserved profits, in sixteen banks doing a purely Australasian business, amounted in 1872 to 12,121,000*l.*, and that the dividends paid by these banks were at the rate of 1,471,466*l.* per annum, being an average return of $12\frac{1}{7}$ per cent. The dividends ranged from 7 to 20 per cent., but four banks only paid over 10 per cent. To anyone conversant with Australasian banking, there will be no difficulty in explaining the decrease in banking profits. It is not that banking capital is excessive, or that Australia is no longer a profitable field for its employment, but it is that the banks have been unable to fix definite rates and to keep to them, owing to the keenness of competition.

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* Quoted by Mr. Palgrave, vol. xxxvi, p. 109, *Journal of Statistical Society.*

The increase of the cash deposits in Australasian banks between 1870 and 1872, appears from Table I, to have amounted to 7,000,000*l.* This remarkable fact is evidence of the recent rapid growth of colonial wealth, and gives rise to many interesting inquiries. But the only one with which we have now to do is how will the development of wealth affect the exchange relations between the colonies and Great Britain.

This increase of money in the banks, represents only a portion of the recent profits of Australasia, profits derived entirely from colonial exports to this country.

During the five years ending 1872, there had been scarcely any immigration.

Owing to the fall in the value of money in the colonies, there has been no inducement to remit capital thither for investment; indeed, the tendency has been strongly in the other direction, viz., to withdraw money, because profitable mortgages, &c., could no longer be found. It is not that great loans have been raised in England for the construction of railways; on the contrary, all recent government loans have been contracted for in the colonies at lower rates than they would probably have been in the London market, while at the same time the former loans, the bonds of which are held here, have been and are being steadily paid off by periodical drawings.

III.

From whence, then, has this wealth come? It will be found that in 1870 the price of wool reached its lowest point, and that by the end of 1872 it had improved by about 55 per cent.* The value of the wool shipped from the six Australasian colonies in 1870, according to colonial returns, was 9,121,915*l.*; in 1871, 11,974,350*l.*

The corresponding returns for 1872 are not yet complete, but if it be granted that the product of wool in the two years was the same, and that the average increase in the value of the import of 1872 over 1871 was 23 per cent.,† then it follows that the total value of the wool product of the six Australasian colonies in 1872 would have reached 14,728,450*l.* On the two years, therefore, Australia must have reaped additional profit on her staple product, amounting to 8,458,970*l.*

A second cause of the recent growth of wealth in Australasia has been the increased production of gold. There is no means of arriving at the exact value of gold obtained from the mines, as it is quite optional with the miner, whether he send his gold to the Sydney or Melbourne Mints, or to the banks. There are, however, various means by which an approximately correct estimate of the total production may be ascertained.

We may here take with confidence the Board of Trade figures, especially as during the past three or four years, some insignificant amounts excepted, the whole Australasian export has come to this country.

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* On 1st January, 1871, the price of average Australian fleece, washed, was 17½*d.*
„ 1st „ 1873 „ „ „ 27*d.*

† The Board of Trade returns give as the Australasian export of wool to this country for 1871 182,707,000 lbs., value 10,843,000*l.*, and for 1872 173,201,712 lbs., value 10,822,798*l.* As these figures do not include the shipments made direct to America, and as, moreover, the value of the import of 1872 is very much understated, they have been found of little use for the purpose of this paper. The following letter from a leading wool broker, is the authority on which the calculations in the paper have been based:—

"The imports from the Australasian colonies into the United Kingdom during "1871 were 567,743 bales, during 1872 522,559 bales, and the difference was "estimated to have been made up by the shipments direct from the colonies to the "United States and Canada.

"The brokers' reports consequently on the trade for 1872, treated the produc- "tion as having been stationary.

"Looking at the evidence afforded by our own books, and comparing this with "the relative quotation for the two seasons, I find an average difference in value "throughout the year of 23 per cent. You will observe Mr. Schwartze's com- "parative quotations deal with the relative value of the article at two particular "periods only. Thus, while the production remained the same, the value increased "by 23 per cent., or, if you leave out of calculation the shipments to America, the "deficiency sent to United Kingdom was about 9 per cent., against the increased "value of 23 per cent."

The average annual import of gold from Australasia during the eleven years ending 1872, was 6,115,817*l.*

	£
In 1870 it was	6,478,000
„ '71 „	6,898,000
„ '72 „	5,983,000

or, an average on the three years, of 6,453,000*l.*

The cessation of shipments to India is sufficient to account for the slight increase of the average during the three last years, as compared with the whole period I have taken. We may fairly conclude, therefore, that from 1870 to 1872 the total shipments were quite equal to the average of the eleven years. But in the two years ending 1872, we find from Table I that the specie and bullion held by the banks, increased from 5,560,712*l.* to 9,009,870*l.*, or by 3,449,158*l.*; it follows, therefore, that as Australasia, taken as a whole, never imports gold, the increment in the banks must either have been drawn from the colonial circulation, or it must have been owing to an increased production.

Now, as during the two years in question, trade revived and the imports largely increased, it is not at all probable that the specie circulation diminished, but it is more likely that the contrary was the case; consequently, we infer that the increased stock of three millions and a-half in two years, was owing entirely to increased production, and was so much added to the wealth of the colonies.

This estimate is altogether apart from the increased stock of bullion held by the Mints, as I have not received the Mint returns for 1872; but, on the authority of Mr. Rolleston, the Auditor-General of New South Wales, we are informed that in that colony, "The coin and bullion in the Sydney branch of the Royal Mint, in "the colonial treasury, and in the banks of the colony, on 31st "December, 1871, amounted to 2,522,387*l.*, being an increase of 74*l.* "per cent. on the amount on the same day of the previous year."

It is true that the production is not at present equal to some of the early years of the gold discoveries. Thus, in the first eight years after the discovery of gold, its total product had reached 59,807,000*l.*, and in the year 1856 alone, the product of Victoria is said to have been 14,000,000*l.* from alluvial washings.

From 1858 to 1872 we imported from Australasia 97,841,106*l.*; and from India, also Australian gold, amounting to 6,135,449*l.*, together 103,976,555*l.*, or an annual average of 6,931,770*l.* since 1858. During the current year (1873)* we know that this average will be exceeded by about 3,000,000*l.* But this, as we shall presently see, will not have been due to the increased product of one year only. There, is, however, reason to hope for a steady increase of production. New and rich mines have been discovered. Those in New Zealand from 1857 to 1872 produced 26,084,260*l.* Gold has been discovered in the northern territory of South Australia and in Tasmania. Mines, rich beyond all previous experience, have within the last two years been opened up in New South Wales. But it has been to the attention to quartz mining, and to the great recent improvements in the crushing machinery, that the increased product of 1872-73 has mainly been owing. Scarcely any quartz leases had been taken out in New South Wales before 1872, and since then we have constantly met with almost fabulous accounts of the results. The advantage of quartz over alluvial mining, is being remarkably illustrated also in Victoria. From the gold mining returns of that colony for the quarter ending 30th June, 1873, we find that while 35,806 alluvial miners only obtained 123,643 oz. of gold, 17,079 quartz miners obtained 159,604 oz. It is probable, therefore, that the miners will gradually desert the diggings for the quartz reefs, and the result will be a largely increased production.

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* The total amount of gold received from Australia in 1873 was 9,972,900*l.*

I make no apology for the introduction of these matters, as the question of the gold supply excites the keenest interest at the present time, and it is one so intimately bound up with the question of Australasian banking. I must protest against the notion, which seems to be so common amongst newspaper writers, that it is only necessary for the Bank of England rate to be raised sufficiently to attract gold from Australia, and the complacency with which large arrivals from Australia are sometimes regarded as the direct result of a high rate of discount in London. The bank rate is raised from 4 per cent. to 7 per cent. A large shipment of Australian gold arrives, and then, we are told by the leading journal, "the effect was "immediate, and the moment we not only ceased to underbid "foreign dealers, but to demand a rate slightly in excess of their "own, a supply was attracted hither sufficient to restore the market "to a normal condition, and this process must at all times and in "all circumstances prove equally effective."

Gold is sent from Australia without any reference to the Bank of England rate of discount. The freight and insurance on gold from Sydney or Melbourne, is about 1¼ per cent., and it would be obviously a bad business to incur that expense only to discover on the arrival of the gold in London, that its immediate effect was to "*restore the market to a normal condition.*"

Gold reaches us from Australia in one of two capacities, either as a commodity, or as the balance of the exchanges. In the early days it was shipped simply as a commodity. Thus, I read in a bank report, dated 1853, "We shall have to take to account during the "next six months the surplus proceeds of our gold shipments, of "which the first account sales have just come to hand per

"'Harbinger,' but part of this amount will be absorbed by the "charge for the importation of specie."

At the time of that report, the entire specie held by all the banks in Australasia did not amount to one million sterling, now it is 7,800,000*l.* The establishment of the Sydney Mint saved the necessity of the Australian importation of gold coin, and specie is now sent home when the banks find they have no other means of remitting. It is otherwise with bar gold; as all the Melbourne banks, and the bank of New South Wales in Sydney, have their own smelting establishments, they send their product to the best market. To the colonial mints they would have to pay threepence per ounce coinage; that charge is not incurred in London.

But the wool and gold, although the staple articles of Australasia, are not her only products; she sends us a great variety of commodities, and the number is constantly increasing. The export from the continent of Australia of produce, other than wool and gold, in 1871 exceeded the value of the same products exported in 1870 by 2,000,900*l.* In New Zealand, in 1871, it happened in respect of these sundry articles, there was a decreased export of 167,000*l.* The net increase, therefore, of the whole of Australasia for that year was 1,842,000*l.* The following year, I have no doubt whatever, the increase was much greater, but as the returns are not yet received, we must be content to take the same figures. As a minimum estimate we may thus reckon that the increased profit on sundry exports, other than gold and wool, on the two years ending 1872 amounted to 3,688,000*l.* To recapitulate: the additional income of Australasia, derived from her products, over and above that of 1870, on the two following years amounted to—

	£
From wool	8,458,970
,, gold	3,449,158
Sundry products	3,688,000
	15,596,128

of which sum 7,000,000*l.* had been placed on deposit with the Australasian banks.

There cannot, I think, be a doubt that by the end of 1873 this addition to the wealth of all southern colonies will have been further increased.

To those at all acquainted with Australia, I need not point out the numberless other evidences of this increase of wealth. At the commencement of 1870, the 5 per cent. Colonial Government Debentures stood at par; on the 6th October last at Sydney, the same bonds, apart from interest accrued, were quoted 108$\frac{1}{4}$–$\frac{3}{4}$, being 2$\frac{1}{2}$ per cent. higher than in London at same date. In a trade circular, dated Sydney, 10th September, 1873, I read that pastoral properties "have "doubled their value within the last two years." And we have lately heard of one squatting station selling for 180,000*l.*, and another for 250,000*l.* In the same period the value of land in Melbourne is said, by a Melbourne paper, to have doubled.

IV.

But, strangely enough, this fact of the wonderful recent growth of wealth in Australasia, would seem to be quite contradicted by the Board of Trade returns.

Imports to United Kingdom from Australasia.

	£	£
1868	12,571,473	
Gold and silver	6,990,609	
		19,562,082
1869	12,147,301	
Gold and silver	7,898,198	
		20,045,499
1870	14,075,264	
Gold and silver	6,486,225	
		20,561,489
1871	14,520,143	
Gold and silver	6,919,480	
		21,439,623
1872	15,625,866	
Gold and silver	6,014,621	
		21,640,487
Total imports, five years		103,249,180
Annual average imports		20,649,836

Exports from United Kingdom to Australasia.

	£
1868	13,063,064
1869	14,381,536
1870	10,735,481
1871	11,113,714
1872	15,482,776
	64,776,571
Annual average exports	12,955,314

I have tabulated the returns for five years, because the value of the imports, apart from precious metals, for any one year would be unreliable, whilst it is generally considered that, taking one year with another, over a quinquennial or longer period, the returns are approximately correct. This is easily accounted for, because the declared value of imported goods may be considered as the shippers' valuation. It will be seen at once, therefore, that a rise or fall in value, in the course of a few months, of 20 or 30 per cent. on a staple article, will not appear in the returns for the year of import, but in the following year. In dealing with the exports we have no such difficulty, and consequently they form a much more useful guide to the course of Australasian trade. Thus an enhanced value or falling off in the colonial staple, finds an immediate response in the value of the exports.

In 1870 the price of wool was at its lowest, and in that year the exports only amounted to 10,735,481*l.*; in 1872, as we have seen, its value had increased by 55 per cent.; and in that year the exports amounted to 15,482,776*l.* These results indicate a law of Australasian trade.

V.

But what light do these returns throw upon the exchanges?

They first show the remarkable steadiness of the Australasian export of gold. In the five years ending 1872, the variation in any one year for the average of the eleven years, did not exceed a million and three-quarters sterling. This is in striking contrast with our imports of gold from the other great producing country. Our receipts of gold from the United States in 1869 fell below 3,000,000*l.* sterling, and in 1872 they reached nearly 13,000,000*l.*

The next observation the Board of Trade returns suggest is, "How is it that the exchange is always in favour of England, while "the annual exports to Australasia average 7,694,522*l.* less than "the imports from the colonies?" We cannot pretend within our limits, to answer fully this interesting question. London being the centre of exchange, Australasia makes all her payments here, not only for goods which she imports direct from the United Kingdom, but for imports from all other countries. The colonists are very great tea drinkers, and in 1871 we paid to India and the East on Australasian account, 3,280,000*l.* for tea and sugar. Other articles, such as rice, spices, and the class of goods known as "Yankee "Notions," are also imported direct and paid for in London, probably to the amount of 1,000,000*l.* annually. In 1871, the total tonnage of British vessels which cleared from London for Australasian ports was 240,589 tons register, and probably the tonnage from other British and foreign* ports to Australasia, would equal the trade from London, so that the colonial indebtedness to British owners for freightage would be on 481,178 tons register. This, at the moderate rate of 50*s.* per ton, would amount to 1,202,945*l.* The annual value of the homeward freight from Australasia to London alone has been estimated at 1,056,340*l.*; but that is not a charge against the colonies.

A more important item yet in the exchange calculation, arises from the class known in the colonies as absentees, *i.e.*, wealthy colonists who are resident out of the colonies, or who may be travelling abroad. There are many such, some of them men of enormous wealth. I am not aware that an estimate has ever been made of the absentees' annual draft on Australasia, although the matter is often referred to by colonial politicians, and a very exaggerated impression of the amount is conveyed. Probably much of the income of the absentees is retained in the colonies for re-investment, but the amount drawn cannot be less than 3,000,000*l.* sterling annually. We know that the wealthy classes of Russia spend much of their time in France and Italy, and the money thus drawn from their own country has always been considered an important feature of the Russian exchange. It has been pointed out that the monetary loss to Russia is precisely as if she spent enormous sums in importing some useless luxury, as, for instance, champagne. It cannot be doubted that the constant and increasing drain on Australia is very similar, and the draft of the non-resident colonists must always have an important bearing on the Australasian exchanges. There is one other feature of no less importance yet to be noticed, viz., the annual return on British capital invested in Australasia. Here, again, any estimate of the amount must be vague. For the sake of the argument, we may suppose that the amount of British capital invested in the stocks of the Australasian Governments, in business and squatting properties, in banks, mines, and numerous public companies, is 70,000,000*l.*: the annual payment of interest on that amount, say at 6 per cent., would be 4,200,000*l.*

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* The total tonnage of British vessels entered and cleared in Australasian ports in 1871 was 4,034,548, and this was exclusive of the coasting trade. The earnings of these vessels would, of course, be very much more than the amount estimated in the paper, but it is only for the carriage to Australasia that the colonies would be indebted. Vessels earn a far heavier freightage on the homeward than on the outward voyage; but this is paid by the London importing merchant. Again, British vessels are constantly trading between Australian and Chinese, as also Indian and American ports; a small proportion only of this freightage is paid by Australia. Vessels which do not load with wool direct for London are mostly employed in carrying coals to China or San Francisco. A ship carries 40 to 50 per cent. more coals than her registered tonnage. The freight to China varies from 25*s.* to 40*s.* per ton, and to India and San Francisco it is about 25*s.* This carriage is not paid by the shippers, but by the consumers of the coals.

	£
Taking then our annual exports to Australasia at	13,000,000
Payments to other countries on Australasian account	4,280,000
Freight on British carrying trade	1,202,945
Drafts of absentees and payments of interest	7,200,000
	25,682,945

We arrive at some idea of the amount annually debited by Great Britain to Australasia. So that the balance of exchange, instead of being, as the Board of Trade returns appear to show, 7 or 8 millions per annum in favour of Australasia, it was before the recent rise in the price of wool, probably about 5 millions annually, in favour of this country.

VI.

I have now to call attention to Table IV, with the view of showing the proportion of 1*l.* notes in circulation to the entire Australasian note issue. I have obtained returns of the circulation of two important banks, and these prove that more than one-half of the entire circulation consist, of notes of the smallest denomination, and the testimony of all Australian bankers with whom I have conferred is confirmatory of this. The 1*l.* note issue, therefore, is at the rate of 17*s.* 11*d.* per head of the population.

The truth of the doctrine, that a convertible note circulation is never in excess of the requirements of the community, has been proved in Australia. The note circulation rose to its highest point in 1856, because at that time the specie circulation was altogether inadequate to the requirements of the population, and bank notes were wanted at the gold fields.

Since that time, branch banks have been opened in every township, and every gold digger, or artisan, or stockman, who has 5*l.* of his own, keeps his banking account. For the transmission of money, therefore, cheques or bank transfers save the note circulation, and it is consequently much less now, than in the early days of the gold discovery.

In New South Wales, where the duty on the note issue is heavy, viz., 2*s.* per cent. on annual average, and in Queensland 3*s.* per cent., it cannot be said that the circulation adds much to banking profits; but the great advantage to bankers is, that the 1*l.* note circulation enables the banks to conduct the country branches with safety. The re-institution in England of the 1*l.* note has recently been advocated, not altogether on the ground of the additional convenience it would afford the public, although that should be the first consideration, but from the great saving it would effect in the wear and tear of gold coin, the loss of which at present falls on London bankers, and to the addition it would make to the available reserve of bullion. Now, I believe, it is the case in Scotland, as in Australia, that about half the note circulation is in 1*l.* notes. In both countries the note circulation is within a fraction of 1*l.* 15*s.* 10*d.* per head of the population. In England, although the notes include higher denominations, as 1,000*l.* and 500*l.* notes, not used in Scotland or in the colonies, the circulation per head of population is only 1*l.* 6*s.* 10*d.* But there seems no reason to suppose that the 1*l.* note issue might not attain in England the same proportion to population as in Scotland and Australia. This at 17*s.* 11*d.* per head on 23,000,000 population would amount to 20,000,000*l.*, and the specie circulation would be diminished to that extent.

VII.

Banking in Australia being based on the Scotch system, it may be useful to compare the banking statistics of Scotland and the colonies.

The Auditor-General of New South Wales estimates the banking deposits per head of the population of that colony at 15*l.* 17*s.* 1*d.* This, however, includes savings banks. But, taking the Australasian colonies (Western Australia excepted), I estimate the actual banking deposits, apart from savings banks, are at the rate of 15*l.* 15*s.* 5*d.* per head of the population. The deposits in the Scotch banks would appear to be at the rate of 19*l.* 19*s.* per head of the population of Scotland.

	Cash Deposits.	Population.	Per Head of Population.		
	£	£	£	*s.*	*d.*
Australasia	30,171,000	1,913,000	15	15	5
Scotland	66,828,000	3,366,378	19	19	–

It has always been considered that Scotland has more banking offices in proportion to the number of her people, than any other country. If Scotland be over banked, Australia is very much more so.

In Scotland there are 813 banking offices, that is, there is a bank for every 4,140 of the population. In Australia there are 500 banks and branch banks, *i.e.*, a bank for every 3,826 of the population.

It has often been said, unwisely I think, that the Scotch banks are overweighted with capital. But although the liabilities of the Scotch banks exceed the liabilities of the Australasian banks by 34,000,000*l.* sterling, the amount of shareholders' money in Australasian and Scotch banks is about the same.

	Bank Liabilities to Public.	Shareholders' Money.	Per Cent. of Liabilities.
	£	£	£
Australasia	43,507,000	13,123,000	29
Scotland	79,010,000	13,184,000	16$\frac{2}{3}$

In both countries, the bank buildings form the principal architectural features of the towns. The practice of the Scotch banks, as of the Australasian, is to understate in their balance sheets, very considerably, the outlay on buildings and sites. The proportion of premises accounts to total liabilities of the Australasian exceeds that of the Scotch by 1$\frac{1}{10}$ per cent.

	Bank Premises.	Total Liabilities.	Percentage.
	£	£	
Australasia	1,397,000	56,693,000	2$\frac{1}{2}$
Scotland	1,312,000	92,194,000	1$\frac{2}{5}$

VIII.

There is one feature of banking, however, in which the Australasian banks most deservedly are pre-eminent, viz., the proportion of bullion and specie held against liabilities to public. Mr. Palgrave has estimated* the total money reserve held by the banks of the United Kingdom at about 4 per cent. of their liabilities, and I have not heard that this is considered below the mark. But Mr. Palgrave's estimate was inferential, as, with the exception of the Bank of England, no English bank reports the amount of specie it holds. The 8 millions of bankers' balances in the Bank of England, is the only cash reserve of the English banks. In Scotland, the banks hold specie and notes of other banks amounting to 6,241,000*l.*, or 7$\frac{9}{10}$ per cent. of liabilities to public. The Australasian banks hold bullion and specie amounting to 12,039,000*l.*, or 27 per cent. of their liabilities to the public.

* Vol. xxxvi, p. 109.

TABLE I.—*Summary of Sworn Returns of the Average Liabilities and Assets, and of the Capital Returns of the Banks for the last Quarter of each Year,*

1	2	3	4	5	6	7	8	9	10
Name of Colony.	Year ending 31st December.	Liabilities.					Assets.		
		Notes in Circulation.	Bills in Circulation.	Balances Due to other Banks.	Deposits.	Total Average Liabilities.	Coin.	Bullion.	Landed Property.
		£	£	£	£	£	£	£	£
New South Wales	1863	841,	34,	520,	5,631,	7,026,	1,012,	62,	278,
Victoria	,,	1,360,	87,	93,	7,346,	8,887,	1,287,	534,	508,
New South Wales	1864	786,	42,	467,	5,562,	6,858,	1,130,	82,	270,
Victoria	,,	1,306,	85,	74,	8,018,	9,485,	1,382,	469,	511,
New South Wales	1865	729,	67,	338,	5,827,	6,962,	1,328,	125,	259,
Victoria	,,	1,319,	75,	137,	8,415,	9,948,	1,356,	454,	517,
New South Wales	1866	633,	29,	289,	6,004,	6,956,	1,116,	121,	272,
Victoria	,,	1,211,	144,	101,	8,288,	9,746,	1,377,	492,	545,
New South Wales	1867	637,	36,	111,	6,121,	6,906,	1,653,	92,	274,
Victoria	,,	1,182,	127,	120,	9,459,	10,890,	1,974,	615,	554,
New South Wales	1868	677,	53,	253,	6,550,	7,534,	2,134,	173,	279,
Victoria	,,	1,271,	93,	100,	10,216,	11,679,	2,287,	523,	571,
Queensland	,,	168,	10,	19,	1,018,	1,214,	333,	19,	82,
New Zealand	,,	592,	46,	18,	3,159,	3,817,	944,	228,	138,
South Australia	,,	225,	12,	18,	1,295,	1,549,	332,	1,	102,
		2,933,	214,	408,	22,238,	25,793,	6,030,	944,	1,172,
New South Wales	1869	714,	55,	252,	6,626,	7,647,	1,185,	68,	282,
Victoria	,,	1,287,	116,	203,	10,350,	11,956,	1,880,	475,	584,
Queensland	,,	152,	8,	15,	962,	1,139,	279,	23,	84,
New Zealand	,,	619,	38,	66,	3,186,	3,910,	1,026,	225,	155,
South Australia	,,	241,	9,	40,	1,408,	1,697,	376,	3,	105,
		3,013,	226,	576,	22,532,	26,349,	4,746,	794,	1,206,
New South Wales	1870	695,	50,	344,	6,109,	7,199,	1,291,	87,	294,
Victoria	,,	1,213,	113,	133,	10,899,	12,357,	1,775,	621,	616,
Queensland	,,	147,	8,	13,	923,	1,092,	264,	25,	84,
New Zealand	,,	547,	38,	53,	2,930,	3,568,	945,	240,	155,
South Australia	,,	212,	8,	46,	1,196,	1,463,	307,	5,	104,
		2,814,	217,	589,	22,057,	25,679,	4,582,	978,	1,253,
New South Wales	1871	708,	40,	225,	7,045,	8,017,	2,232,	168,	305,
Victoria	,,	1,249,	122,	133,	11,358,	12,862,	2,385,	487,	636,
Queensland	,,	171,	10,	14,	1,240,	1,436,	279,	36,	84,
New Zealand	,,	588,	29,	28,	3,569,	4,215,	1,046,	274,	160,
South Australia	,,	248,	11,	22,	1,522,	1,803,	376,	3,	103,
		2,964,	212,	422,	24,734,	28,333,	6,318,	968,	1,288,
New South Wales	1872	876,	33,	214,	9,273,	10,397,	2,899,	81,	308,
Victoria	,,	1,327,	90,	219,	12,299,	13,935,	2,708,	663,	636,
Queensland	,,	229,	8,	15,	1,590,	1,843,	482,	52,	88,
New Zealand	,,	652,	41,	19,	4,024,	4,735,	1,098,	410,	156,
South Australia	,,	270,	19,	43,	1,679,	2,010,	469,	3,	104,
Tasmania, 31 Mar.	1873	56,	—	—	517,	573,	144,	—	8,
		3,410,	191,	510,	29,382,	33,493,	7,800,	1,209,	1,300,

and Profits of the Banks in the Australian Colonies. The Averages taken from the Weekly published in the Colonial Gazettes. [000's omitted.]

11	12	13	14	15	16	17	18	2
Assets.								Year ending 31st December.
Notes and Bills of other Banks.	Balances Due from other Banks.	Bills Discounted, Government Securities, and all other Debts.	Total Average Assets.	Capital.	Amount of last Dividend.	Return per Annum of last Dividend.	Amount of Reserved Profits at time of Declaring Dividend.	
£	£	£	£	£	£		£	
70,	1,497,	6,968,	9,889,	6,184,	400,	6 to 20 per cnt.	1,384,	1863
145,	200,	10,527,	13,202,	6,827,	402,	$10\frac{2}{3}$ average	1,404,	,,
67,	1,701,	7,299,	10,552,	7,153,	451,	6 to $17\frac{1}{2}$ per cnt.	1,582,	1864
160,	262,	10,647,	13,433,	7,618,	456,	$11\frac{8}{9}$ average	1,594,	,,
41,	2,091,	7,100,	10,947,	7,724,	489,	7 to 20 per. cnt.	1,894,	1865
175,	167,	12,083,	14,755,	8,007,	505,	$11\frac{9}{10}$ average	1,963,	,,
36,	1,930,	7,458,	10,935,	7,755,	512,	7 to 18 per cnt.	1,954,	1866
151,	210,	12,107,	14,885,	8,092,	500,	$10\frac{2}{5}$ average	2,151,	,,
34,	1,839,	6,679,	10,574,	7,755,	502,	7 to $17\frac{1}{2}$ per cnt.	1,969,	1867
139,	259,	12,234,	15,777,	8,136,	496,	—	2,123,	,,
34,	1,843,	7,226,	11,690,	7,634,	443,	7 to 17 per cnt.	1,941,	1868
154,	358,	12,358,	16,252,	8,320,	459,	$10\frac{7}{20}$ average	2,145,	,,
10,	23,	1,585,	2,051,	—	—	8 to 17 per cnt.	—	,,
12,	146,	4,376,	5,846,	—	—	6 ,, 15 ,,	—	,,
33,	71,	2,695,	3,234,	—	—	$7\frac{1}{2}$,, $12\frac{1}{2}$,,	—	,,
243,	2,441,	28,240,	39,073,	—	—	—	—	
29,	1,553,	8,085,	11,203,	7,634,	441,	7 to 17 per cnt.	1,965,	1869
160,	236,	14,331,	17,666,	8,347,	452,	$9\frac{11}{25}$ average	2,208,	,,
15,	24,	1,576,	2,002,	—	—	8 to 17 per cnt.	—	,,
13,	63,	5,292,	6,771,	—	—	6 ,, 15 ,,	—	,,
20,	71,	2,903,	3,478,	—	—	7 ,, 15 ,,	—	,,
237,	1,947,	32,187,	41,120,	—	—	—	—	
32,	1,427,	7,814,	10,946,	7,668,	398,	7 to 17 per cnt.	1,923,	1870
150,	230,	13,475,	16,866,	8,305,	417,	$9\frac{9}{20}$ average	2,127,	,,
24,	21,	1,306,	1,725,	—	—	8 to 17 per cnt.	—	,,
13,	37,	4,730,	6,122,	—	229,	6 ,, 15 ,,	—	,,
18,	49,	2,862,	3,344,	—	—	7 ,, 12 ,,	—	,,
237,	1,764,	30,187,	39,003,	—	—	—	—	
33,	1,186,	7,668,	11,592,	7,760,	401,	5 to 17 per cnt.	1,912,	1871
159,	313,	13,241,	17,222,	8,276,	410,	$9\frac{1}{5}$ average	2,091,	,,
9,	26,	1,262,	1,695,	—	—	6 to 17 per cnt.	—	,,
11,	81,	4,189,	5,763,	—	—	—	—	,,
21,	84,	2,937,	3,524,	—	—	7 to 13 per cnt.	—	,,
233,	1,690,	29,297,	39,796,	—	—	—	—	
37,	1,872,	8,728,	13,924,	7,674,	409,	6 to 20 per cnt.	2,000,	1872
164,	354,	13,600,	18,126,	8,276,	421,	$9\frac{9}{20}$ average	2,171,	,,
13,	75,	1,489,	2,200,	—	—	8 to 20 per cnt.	—	,,
16,	35,	4,067,	5,783,	—	—	2 ,, 13 ,,	—	,
18,	70,	2,844,	3,509,	—	—	7 ,, 13 ,,	—	,,
—	—	805,	957,	—	—	—	—	1873
248,	2,406,	31,533,	44,499,	—	—	—	—	

TABLE II.—*Aggregate Returns of Australian Banks,*

[000's omitted, thus 1,531, = 1,531,000.]

Name of Bank.	1 Date Established.	2 Date of Balance Sheet.	3	4	5	6	7	8	9
			Liabilities.						
			Capital Paid.	Reserve and Undivided Profits.	Total of Shareholders' Money.	Cash Deposits.	Notes Issued.	Bills in Circulation.	Total Liabilities to Public.
			£	£	£	£	£	£	£
Australian Joint Stock Bank	1853	31/12/72	485,	58,	543,	1,835,	270,	341,	2,446,
Bank of Adelaide	'66	30/12/72	250,	50,	300,	298,	40,	27,	365,
" Australasia	'35	14/10/72	1,200,	331,	1,531,	2,973,	295,	600,	3,868,
" New South Wales	'17	30/9/72	1,000,	415,	1,415,	5,821,	579,	2,203,	8,603,
Bank of New Zealand	'61	"	600,	226,	826,	3,213,	322,	900,	4,435,
" South Australia	'41	31/12/72	500,	177,	677,	922,	73,	159,	1,154,
Bank of Victoria	'52	"	500,	209,	709,	2,789,	308,	448,	3,545,
City Bank, Sydney	'64	"	240,	44,	284,	472,	24,	—	496,
Colonial Bank of Australasia	'56	31/3/73	406,	47,	453,	1,152,	104,	191,	1,447,
Commercial Bank of Australia	'67	31/12/72	160,	35,	195,	593,	89,	—	682,
Commercial Banking Company, Sydney	'34	"	400,	227,	627,	2,600,	300,	5,	2,905,
English, Scottish, and Australian Chartered Bank	'52	"	600,	72,	672,	976,	94,	204,	1,274,
London Chartered Bank of Australia	'52	"	1,000,	169,	1,169,	1,705,	140,	423,	2,268,
National Bank of Australasia	'58	30/9/72	660,	237,	897,	1,462,	220,	353,	2,035,
Queensland National Bank	'72	31/12/72	106,	—	106,	136,	14,	—	150,
Union Bank of Australia	'37	"	1,250,	489,	1,739,	4,258,	351,	812,	5,421,
			9,357,	2,786,	12,143,	31,205,	3,223,	6,666,	41,094,
The following from Colonial Gazettes—									
Bank of Van Diemen's Land	—	Average for three months ending 31/3/73	—	—	166,	198,	24,	—	222,
Bank of Tasmania	—		—	—	57,	36,	6,	—	42,
Commercial Bank of Tasmania	—		—	—	161,	283,	26,	—	309,
Oriental Bank Corporation	1852	31/12/72	1,500,	598,	365,	1,478,	154,	5,	1,634,
			10,857,	3,384,	12,892,	33,197,	3,433,	6,671,	43,301,
The following not Published in Gazette—									
Ballarat Bank Company	1864	31/12/72	71,	23,	94,	90,	—	—	90,
Mercantile Bank of Sydney	—	29/6/72	120,	17,	137,	179,	—	—	179,
			11,048,	3,424,	13,123,	33,466,	3,433,	6,671,	43,570,

taken from Published Balance Sheets, end of 1872.

[000's omitted, thus 1,531, = 1,531,000.]

10	11	12	13	14	15	16	1	
Assets.					Profits.			
Coin and Bullion.	Government Securities.	Bills and Debit Balances.	Land and House Property.	Total Assets.	Net Profits on Half-Year.	Dividend Rate per Annum.	Date Established.	Name of Bank.
£	£	£	£	£	£			
504,	84,	2,318,	83,	2,989,	37,680	9¼	1853	Australian Joint Stock Bank
65,	—	596,	4,	665,	15,351	8¾	'66	Bank of Adelaide
791,	914,	3,510,	183,	5,398,	60,330	10	'35	" Australasia
3,559,	45,	6,238,	176,	10,018,	80,239	12½	'17	" New South Wales
878,	350,	3,939,	94,	5,261,	46,360	12½	'61	Bank of New Zealand
127,	175,	1,500,	30,	1,832,	25,897	10	'41	" South Australia
1,060,	—	3,073,	122,	4,255,	43,798	10	'52	Bank of Victoria
134,	—	622,	24,	780,	13,452	7½	'64	City Bank, Sydney
370,	—	1,472,	58,	1,900,	22,106	8	'56	Colonial Bank of Australasia
160,	—	685,	29,	874,	15,645	7	'67	Commercial Bank of Australia
449,	370,	2,654,	59,	3,532,	57,554	20	'34	Commercial Banking Company, Sydney
330,	—	1,561,	56,	1,947,	31,317	7	'52	English, Scottish, and Australian Chartered Bank
546,	—	2,771,	120,	3,437,	48,808	8	'52	London Chartered Bank of Australia
492,	88,	2,222,	129,	2,931,	41,994	10	'58	National Bank of Australasia
80,	—	165,	6,	251,	—	—	'72	Queensland National Bank
1,582,	567,	4,840,	171,	7,160,	88,550	13	'37	Union Bank of Australia
11,127,	2,593,	38,166,	1,344,	53,230,	629,081	—		
								The following from Colonial Gazettes—
48,	—	338,	2,	388,	—	—	—	Bank of Van Diemen's Land
16,	—	83,	—	99,	—	—	—	Bank of Tasmania
80,	—	384,	6,	470,	—	—	—	Commercial Bank of Tasmania
350,	—	1,609,	40,	1,999,	—	12	1852	Oriental Bank Corporation
11,621,	2,593,	40,580,	1,392,	56,186,	—	—		
								The following not Published in Gazette—
43,	—	138,	4,	185,	6,402	10	1864	Ballarat Bank Company
75,	—	240,	1,	316,	8,709	12½	—	Mercantile Bank of Sydney
11,739,	2,593,	40,958,	1,397,	56,687,	—	—		

Table III.—*Computed Adjustment of Difference between the Returns of Australian and New Zealand Banks, for Quarter ending* 31*st December,* 1872, *as per Colonial Gazettes* (Table I), *and the Total Liabilities and Assets of the Banks according to the Published Balance Sheets* (Table II).

[000's omitted.]

	1	2	3	4
	Liabilities.			
	Cash Deposits.	Notes in Circulation.	Bills in Circulation.	Total Liabilities to Public.
	£	£	£	£
Aggregate balance sheets (Table II)	33,466,	3,433,	6,671,	43,570,
Computed additions	—	—	1,500,	1,500,
Grand totals	33,466,	3,433,	8,171,	45,070,

	5	6	7	8
	Assets.			
	Coin and Bullion.	Bills, Debit Balances, and Government Securities.	Land and House Property.	Total Assets.
	£	£	£	£
Aggregate balance sheets (Table II)	11,739,	43,551,	1,397,	56,687,
Computed additions	300,	1,200,	—	1,500,
Grand totals	12,039,	44,751,	1,397,	58,187,

Liabilities.

		£
Gazette returns, representing all cash deposits and balances due to other banks. (Cols. 5 and 6, Table I)		29,892
Deposits held by banks, not being banks of issue; returns not published in Gazettes	£279	
Difference arising from the various dates of the balance sheets of several leading banks	990	
Estimated liability of Australasian banks in London, on account of deposits, credits, &c.	2,305	
		3,574
Total cash deposits as above, col. 1		33,466

Gazette returns, notes in circulation. (Col. 3, Table I)	3,410
Difference arising from the various dates of the balance sheets of several leading banks	23
Total note circulation as above, col. 2	3,433

Gazette returns, bills in circulation. (Col. 4, Table I)	191
Estimated amount of bills *in transitu*	3,800
" acceptances of Australasian banks in London	4,180
Total bills in circulation as above, col. 3	8,171

Assets.

Gazette returns, coin and bullion. (Cols. 8 and 9, Table I)	9,010
Estimated value of coin and bullion *in transitu*	2,039
Difference arising from the various dates of balance sheets of several leading banks	990
Total coin and bullion as above, col. 5	12,039

Gazette returns, bills and notes of other banks, balances due from other banks, Government securities, notes and bills discounted, and all other debts. (Cols. 11, 12, and 13, Table I)	34,189
Estimated amount of bills *in transitu* and held by banks in London, payable in the United Kingdom	5,000
Estimated amount of bills *in transitu*, or held in London, drawn on colonies, negotiated in London	1,000
Estimated amount of cash at call, or at notice, held in London to the credit of Australasian banks	4,562
Total bills discounted, &c., as above, col. 6	44,751

Gazette returns, landed property, and bank premises. (Col. 10, Table I)	1,300
Stated value of buildings and premises belonging to Australasian banks in London	97
Total land and house property, col. 7 as above	1,397

TABLE IV.—*Returns showing the Proportion of Notes Issued of Various Denominations.*

	£
Total notes in circulation in Australian colonies on 31st December, 1872	3,433,000

Particulars of Notes Issued by this Bank from 1st *July*, 1863, *to* 1st *July*, 1868, *and from the latter Date to* 1st *July*, 1873.

BANK NO. 1.

	£1.	£5.	£10.	£20.	£50.
	£	£	£	£	£
From 1st July, 1863, to 1st July, 1868	288,000	155,000	70,000	21,000	45,000
From 1st July, 1868, to 1st July, 1873	324,000	180,000	105,000	10,000	15,000
	612,000	335,000	175,000	31,000	60,000

BANK NO. 2.

	Aggregate Circulation.	1*l.* Notes.	Proportion of 1*l.* Notes to Whole Circulation.
	£	£	
Victoria	132,555	75,825	57·20
New South Wales	6,255	3,190	50·99

Return of Note Forms Printed for an Australian Bank.

Denomination.	Numbers.	Value.
First Series—		£
1*l.*	700,000	700,000
5*l.*	150,000	750,000
10*l.*	80,000	800,000
20*l.*	37,500	750,000
50*l.*	11,000	550,000
Second Series—		
1*l.*	1,000,000	1,000,000
5*l.*	180,000	900,000
10*l.*	20,000	200,000
Third Series—		
1*l.*	500,000	500,000

The Census *of* Bengal. *By* Henry Beverley, M.A., *Inspector-General of Registration in Bengal.*

[Read before the Statistical Society, 17th March, 1874.]

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I.—*Introduction.*

The Census of Bengal that was effected at the commencement of 1872, deserves notice no less on account of its novelty than from the importance of its results. It was the first attempt at anything like a systematic enumeration of the people in that part of India. Up to that time all that was known regarding the numbers of the people, was based upon estimates, the credibility of which varied according to the common sense, the local knowledge and the experience, of the officers by whom they were made. On no previous occasion had any endeavour been made to ascertain by actual house-to-house enumeration the numbers of the heterogeneous masses subject to the Lieutenant-Governor of Bengal. The result was, that the census of 1872 in those provinces brought to light some 25 millions of Her Majesty's subjects, of whose existence our Government had previously been in complete and utter ignorance. The population of Bengal rose in one day from 42 to 67 millions. The Lieutenant-Governor, who was already supposed to have one of the largest gubernatorial charges in the world, suddenly found that he had unconsciously been the ruler of an additional population more than equal to that of the whole of England and Wales.

It is unnecessary to remark in this place, and before the present audience, upon the *importance* of such a discovery regarding the population of a rich and fertile country like Bengal. The census of 1872 will henceforth mark an epoch in the history of the administration of that province. To quote the Administration Report, "the result "has already been almost to revolutionise our ideas both in regard "to the total amount of the population, and relatively in regard to "its distribution in different districts, races and religions; while, "by showing that the numbers vastly exceed any former computa-"tion, it has wholly altered our calculations with respect to the "incidence of taxation, the consumption of salt, and many other "matters." The census is in fact the first great statistical undertaking on which the Government of Bengal has ever engaged, and as such—as an earnest of future statistical researches in that country, it is not unworthy of being brought under the notice of this Society. Even were India altogether independent of this country, this Society could not but welcome any contribution regarding it which tended to advance statistical science. But looking to the intimate connection existing between Great Britain and her vast possessions in the East, this Society has set a noble example in determining that questions relating to India shall receive a large share of its attention. I conceive, therefore, that no apology is needed for introducing to you this evening the subject of the population of the largest, richest, most fertile and most populous, of our Indian provinces.

One remark I may venture to make in this place, in illustration of the utility and importance of the great undertaking which is to receive our attention to-night. For some months past Bengal has been threatened with one of those terrible famines which every now and then devastate our Eastern possessions, and create a spasmodic and extraordinary interest in India among all classes of Englishmen. Before the close of the present year many of the millions of whom I shall speak to you to-night will have felt the pinch of scarcity, and, notwithstanding all exertions to save them, some thousands will probably have fallen victims to famine. The Indian Government is doing and will do all it can to mitigate the horrors of so frightful a calamity, but, do what it can, the mortality from want and disease must be severe. It is a very fortunate circumstance, that at this moment the Government of Bengal has before it the records of the late census, and is thus in a position to estimate the extent and possible severity of the disaster. By showing the true numbers of the people and their distribution in different parts of the country, the census has enabled the Government to see where relief is needed and to what extent. The population of Behar was till last year put down at 11½ millions; the census showed it to be 19¾ millions. Had there been no census, therefore, it may be assumed that there would have been upwards of 8 millions of souls in that province alone entirely ignored in all measures of relief.* Moreover, the Government would have had little or no information to guide it in the selection of the proper sites for the storage of food and for the organisation of relief works. It was owing to its ignorance regarding the numbers and distribution of the people, as much as to anything, that the Government was unable to grapple properly with the famine of 1866. It is owing to the complete information on these points which the census has placed at the disposal of the Government, as much as to anything, that the measures which have been taken to mitigate a similar calamity in 1874, will in all probability be attended with a fair amount of success.

II.—*Description, Area and Population of Bengal.*

The old division of India into the three Presidencies of Bengal, Madras and Bombay, though still retained in some departments of the administration, is for most purposes practically obsolete. The fact is, there are now no fewer than *ten* governments subordinate to our Indian Viceroy and his Council. These ten governments are—Bengal, the North-West Provinces, the Punjab, the Central Provinces, Oudh, Berar, Mysore, Madras, Bombay, and British Burmah.† Madras and Bombay are administered by Governors; Bengal, the North-West Provinces and the Punjab, by Lieutenant-Governors; and the rest by Chief-Commissioners, deriving their authority from the Governor-General. But, notwithstanding the difference in the designation of the principal magistrate, these ten administrations are all separate and distinct. They may differ in the degree of their relationship to the supreme government; but they are in no way subordinate to one another. Of these administrations Bengal ranks first, not only in population and wealth, but in the degree of moral and material progress to which she has attained. It will be remembered, however, that it is not the old Presidency of Bengal of which I speak, but simply that portion of it which is subject to the Lieutenant-Governor.

The Lieutenant-Governor of Bengal administers five provinces, Bengal Proper, Behar, Orissa, Chota Nagpore and Assam;—provinces differing from each other, more or less, in their natural features as well as in the race, language, creed and institutions of their inhabitants. Bengal Proper forms the great alluvial delta of the Ganges and Brahmapootra rivers; it is inhabited throughout by Bengalis speaking the Bengali language. Behar is the name given by the Mogul Government to the lower portion of the Gangetic plain, inhabited by Hindustanis, speaking the same language, and in their manners and customs identical with the people of Oudh and the North-West; Orissa, only too well known to Englishmen from the calamity which devastated it in 1866, is the tract of plain and hill country, lying at the north-west corner of the Bay of Bengal; its inhabitants speak Oorya, a language derived from Sanskrit, like Hindee and Bengali, but with a distinct written character. Chota Nagpore is the name we have given to the table-land lying south of Behar, and largely, though not exclusively, inhabited by aboriginal tribes in a very rude stage of civilisation. Assam is the valley of the Upper Brahmapootra, with such of the hill territory on either side as lies within the British frontier. It is inhabited, though sparsely, by a variety of races. The Assamese language appears to be merely a dialect of Bengali.

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* In Mr. Cockerell's Report on the Famine of 1866, the population of the six districts of Chumparun, Gya, Monghyr, Sarun, Shahabad and Tirhoot, is put down at 7¾ millions; the census showed it to be 13½ millions.

† Scinde and Coorg are also sometimes spoken of as separate administrations; the former, however, is more properly considered as subordinate to Bombay, and the latter to Mysore. Assam is about to be constituted a separate administration.

These five provinces have a total area of 248,231 square miles, with a population of 66,856,859 souls. The figures for each province are given below:—

Area and Population of the several Provinces of Bengal.

Provinces.	Area in Square Miles.	Population.	Average Number of Persons to Square Mile.	Proportion per Cent. of the Area.	Proportion per Cent. of Population.
The entire territory under the Lieutenant-Governor of Bengal	248,231	66,856,859	269	100	100
Bengal	94,539	36,769,735	389	38·1	55·0
Behar	42,417	19,736,101	465	17·1	29·5
Orissa	23,901	4,317,999	181	9·6	6·5
Chota Nagpore	43,901	3,825,571	87	17·7	5·7
Assam	43,473	2,207,453	51	17·5	3·3

It will thus be seen that both the area and the population of the territory subject to the Lieutenant-Governor of Bengal are rather more than double those of the United Kingdom; the average number of persons to the square mile being in the United Kingdom 263 and in Bengal 269. It may be observed, moreover, that, as in the United Kingdom, so in Bengal, the density of the population is by no means uniform, but varies considerably in different provinces, in different districts or counties in the same province, and even in different parts of the same district or county. Scotland, "land

" of the mountain and the flood," scarcely supports 110 persons to the square mile, while England has an average of 422. Similarly the various provinces which constitute the territory administered by the Bengal Government differ enormously in the proportion of the population which they contribute to make up the grand total of 67 millions for the whole proconsulate. Thus, Bengal Proper, though occupying not much more than a third of the whole area, contributes more than half the population. Behar, with one-sixth of the total area, contributes three-tenths of the population. The provinces of Assam and Chota Nagpore are as large as Behar, yet they have only a ninth and a fifth part of its population respectively. The average number of persons to the square mile is 465 in Behar; 389 in Bengal; 181 in Orissa; 87 in Chota Nagpore, and 51 only in Assam.

III.—*Mode of Taking the Census.*

Before proceeding with the discussion of these figures, it may be convenient if I give a brief account of the manner in which the census of 1872 was effected in Bengal. It will readily be understood that the organisation required for the numbering of a population of 66 millions demanded no little forethought and elaboration, and the difficulties were enhanced by the novelty of the undertaking. The Government of India originally desired to take a census of the whole country in very great detail. It was proposed to record the precise status of every individual man, woman and child, with all the rigorous accuracy of a European census. In some provinces a succession of rough censuses had paved the way for such a measure; but in Bengal, as I have said, this was the first attempt at anything of the kind, and it seemed wiser in a first attempt to undertake the business on a less ambitious scale, so as not to court failure by aiming to achieve too much. Moreover, Bengal is not so rich as some other provinces in official and indigenous agencies, and the wishes of the Government of India could not have been carried out without vast hired establishments which would have involved a great cost. The Government of India was for a long time urgent in the matter; but when Sir George Campbell repeated the same arguments which had been used by his predecessor, Sir William Grey, it was conceded that the census operations in Bengal should be of a somewhat simpler character than was at first proposed. At the same time it was understood that all the information that was really necessary for practical and administrative purposes, should as far as possible be collected.

The manner in which the census was actually taken was as follows:—Except in a few outlying districts in which, owing to imperfect agency or political difficulties, a detailed enumeration could not possibly be made,* the people were everywhere counted by means of a house-to-house visitation. In noting the numbers of each household, a distinction was made between males and females, children and adults. The names, nationality, religion and occupation of all adult males were entered, but in the case of children and women (except where heads of houses), the bare numbers were recorded, the caste, &c., of the head of the family being assumed to be that of its female and infant members. Adults were defined to be persons over twelve years of age.

The census was effected for the most part by the people themselves. Two or more of the most respectable residents in each village were selected for this purpose, and complimentary letters were addressed to them by the magistrate of the district appointing them to be the enumerators of their village and giving them the necessary instructions. These enumerators were required in most cases to lend their services gratuitously; but, in order to strengthen the hands of the executive and prevent any unfortunate complication which might arise from the employment of an unpaid agency, a brief Act was passed by the Bengal Legislative Council, investing the enumerators so appointed with the necessary authority, and prescribing penalties for their misconduct or neglect. In places where a sufficient number of intelligent residents qualified to act as enumerators were not to be found, outsiders were specially entertained and paid for the duty. The proceedings of the enumerators were everywhere supervised by the police or by a special agency employed for the purpose; and the supervisors were in their turn controlled and directed by the numerous assistants, European and native, which every magistrate has at his disposal.

By this arrangement it was hoped that a maximum of statistical accuracy would be combined with the minimum of inquisitorial oppression. The enumerators, taken as they were from among the villagers, might naturally be supposed to possess the confidence, as well as some acquaintance with the domestic affairs, of their neighbours. They would already know something of everybody and everybody's children in the village, and there was no fear that they would extort bribes from the men, or insult the women, among whom they would have to live their lives long after the census was done with and forgotten. The temporary importance conferred by the office of enumerator would tend to enhance the respectability of the incumbent, both in his own eyes and in those of his fellow-villagers, and would thus contribute, it was hoped, to an accurate and conscientious discharge of its duties. On the other hand, the control and guidance afforded by the supervising agency would have the effect of checking exuberance of zeal on the part of the enumerators, would remove their doubts, instruct their ignorance, and secure the uniformity which is indispensable in a large undertaking of this nature. The success which attended these arrangements exceeded the most sanguine anticipations. The enumerators, as a body, did their work willingly and well, manifesting a zeal and interest in the proceedings, for which they had hardly been given credit. The competition for the office, unpaid and onerous as it was, was often keen. The letters of appointment are still treasured up among the family archives, to be produced whenever evidence of respectability is required in a court of justice. The police were strictly kept to their work of supervision, being allowed to communicate with the people only through their recognised representatives. The result was that the census was carried out with marvellously little opposition or excitement. No doubt it was generally regarded as a prelude to additional taxation, and in some out-of-the-way places even more absurd beliefs may have taken hold of the popular mind. But, with one single exception, no violent outbreak took place,—a result which, as Sir George Campbell observes, goes further than anything that has occurred in recent years, to show the strength of our political position in these provinces. At the same time, the figures are believed to be as correct as it was possible for them to be, under the circumstances. The district officers, who began by doubting whether the returns would be worth the paper on which they were written, ended by thinking that the census had been well and thoroughly taken. It would be almost unreasonable to expect that, in a country as large as Bengal, a novel experiment like the census could be perfectly successful everywhere, or in every minute particular. But the manner in which the registers and returns were submitted to me for compilation, enable me to bear witness to the evident care and thoroughness with which the business was conducted, both on the part of the enumerators and of those whose duty it was to supervise their proceedings.

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* The exceptional districts were the Naga, Khasia and Garo Hills (the wild mountainous country south of the Assam valley), and Hill Tipperah, the whole occupying some 18,000 square miles. For these districts the best estimates available were adopted.

In more civilised communities a large proportion of those enumerated, assist the operation by themselves filling up their household schedules. In India, on the other hand, owing to the comparative paucity of persons able to read and write, the whole work of filling up the schedules devolves on the enumerators. The question of effecting a census in one and the same day over an enormous tract of country, is thus involved in considerable difficulty. Persons qualified to act as enumerators are not forthcoming in sufficient numbers for each enumerator to have a beat small enough to enable him to record all the necessary particulars regarding it within a few hours. If the enumerator had had to fill up every schedule as he went along, some of the beats would have been altogether unmanageable. The difficulty was partly overcome, however, by allowing the enumerators to compile rough schedules beforehand. They then went round again on the day fixed for the census, and made such corrections or alterations as they found to be necessary. And though, unfortunately, owing to a discretion which the local government allowed to commissioners of divisions, the same date was not fixed for the whole of Bengal, still the margin of inaccuracy which has thus crept into the returns is practically insignificant and may be ignored. In most places the night of the 25th January, 1872, was the date to which the returns refer.

The various forms required for the census were, with some few exceptions, printed at the large Government Press which Dr. Mouat organised in the Alipore prison near Calcutta. These forms had to be translated into several languages to suit the different nationalities to be found in Bengal. Thus, a Bengali translation was required for Bengal Proper; Hindustani in both the Persian and Kaithi character for Behar; Oorya for Orissa; Hindee in the Nagri character for Chota Nagpore and the Sonthal Pergunnahs, and Nepalese for some parts of Darjeeling. Some places in the Sonthal Pergunnahs were so wild that the people could only be counted after the rude national method of the tribe, viz., by tying knots on a number of strings of different colours, a black string being used for male adults, a red one for female adults, a white one for boys, and a yellow one for girls. In the Chittagong Hill Tracts the deputy-commissioner reported that the only way he could count the semi-savage tribes there was by means of notched sticks. Whether the numbering was really effected in this primitive method, I am not prepared to say, the result having been reduced to writing before the returns were submitted to me. The enumerators' schedules were stitched in books of ten or twenty sheets, with a form filled up as a specimen, a printed set of instructions, and a docket cover. The intention was that a separate book should be used for the enumeration of each village or hamlet, but it was not always possible to adhere to this arrangement. Altogether, upwards of 6,500,000 copies of forms in different languages and of various sizes were distributed from the Census Office at Calcutta.

The census was based upon the survey, the survey *mouzah* being adopted as the unit for enumeration purposes. The term *mouzah* is usually translated "village," but more correctly it denotes the village lands, it being by no means an uncommon case to find *mouzahs* without any village at all in the sense of a group of dwellings. Possibly the mouzah may at some time have had dwellings upon it, but they have perhaps been washed away, or in some other manner have disappeared. A *mouzah* is really little more than a survey block. A list of the survey blocks in each police circle was prepared some time before the census, and inquiry was made as to the villages and hamlets in existence on each. In this manner, by working on a geographical basis, and by referring every collection of houses to the land on which it stood, care was taken that no village was omitted from the census or counted twice over. At the same time caution and local knowledge were required in order to work satisfactorily upon this basis. In the first place the names of the *mouzahs* or survey blocks, and of the villages situated upon them, did not always agree, and a strict process of identification became necessary. A *mouzah* or survey block again might contain four or five distinct hamlets, and if the population of these four or five distinct hamlets was recorded merely as belonging to one and the same block, it was liable to be mistaken for the population of one large village or town. On the other hand, a town might have sprung up on the borders of two or more survey blocks, and unless this was specially pointed out, its population was liable to be exhibited as that of two or more distinct villages bearing the names of those survey blocks.

For administrative purposes, Bengal is divided into eleven commissioners' divisions, comprising fifty-three districts or counties. The size of a Bengal district in the present day averages about 4,000 square miles. With improvements in the administration, the boundaries of districts have undergone, and are undergoing, frequent change. Unfortunately these changes in the past have not been carried out on any fixed principle, and the result has been to introduce a confusion of jurisdiction which is often of extreme inconvenience. Thus, although in the regulation districts of Bengal the offices of collector and magistrate are vested in the same person, it by no means follows that the jurisdiction of the collector is conterminous with that of the magistrate. The civil courts, again, have generally a local jurisdiction of their own, so that it is no unfrequent case to find the district boundaries entirely distinct for civil, criminal, and fiscal purposes. In other words, the district has different limits according as it is the district of the collector, of the magistrate, or of the judge. In the Report on the English census, I see that the complexity of boundaries and the want of harmony in the geographical divisions are said to have added considerably to the labours of the undertaking, and in Bengal we have been allowing ourselves to drift into a similar condition of affairs. The matter was prominently brought to the notice of the Government in my official Report as one calling for immediate attention, if a periodical census was to be of any use in calculating the growth of the population; and it is to be hoped that further alterations in boundaries will only be permitted when they tend to a simplification of existing subdivisions. For the purpose of the census, the jurisdiction of the magistrate was taken as the district limits; and the *thannahs*, or police circles, as the subdivisions of the district. The old Mogul divisions of *pergunnahs*, or hundreds, have nearly died out in Bengal, and their want of compactness would always constitute an objection to their adoption for census purposes. *Thannahs*, or police circles, on the other hand, are compact, and for most districts have been defined with the utmost precision by the survey authorities. They are also of late years being gradually adopted as the unit of geographical division for administrative purposes. The average extent of a police circle may be said to be about 300 square miles.

Thus the district was subdivided into *thannahs* or police circles, and the circles into *mouzahs* or survey blocks. Lists of the villages and hamlets in each block were made out, and for each village or hamlet one or two of the most respectable residents were appointed enumerators. The enumerators were instructed and supervised by the police, acting under the control of the magistrate and his assistants.

Many of the peculiar difficulties which had to be overcome by those in charge of the Bengal census, arose from the physical characteristics of the country itself. In some provinces whole villages are buried in forests of mango, palm, or tamarind; while the extent to which the country is intersected everywhere, and especially in the delta of Lower Bengal, by innumerable creeks and water-courses, adds to the difficulty of locomotion, and so of effective supervision and control. Moreover, in a country where considerable numbers of the people pass days and nights, nay, may almost be said to live altogether, on board the countless boats which crowd its waters, it might well be feared that many persons would escape enumeration. Arrangements were made, however, for numbering the floating population, and though no one would of course pretend to say they were perfect, the large number of pilgrims and travellers recorded show that it would have been a mistake to ignore them altogether. The number of vessels and barges alone which came under the observation of the census officers was 60,000, containing something like 300,000 souls. Enumerators were stationed at all the principal ghâts and landing-places for several consecutive days, and every craft which touched during that period was censused in the same way as if it were a house on land, a ticket being given to prevent a repetition of the process elsewhere.

On the completion of the census, the enumerators' books were collected at the head-quarters of each district, and were then forwarded to me for compilation. It was originally intended to have only one compiling office for the whole of Bengal; but the work was found to be so stupendous, and there were so few clerks in Calcutta who could read the Hindee and Oorya returns, that branch offices were established at Patna and Cuttack. In these offices, registers giving the totals for each village were compiled for each district, the totals for each police circle being forwarded to the district officers for explanation and comment. In this way the whole work of compilation was effected in the course of a few months, and my final Report on the subject was published within a twelvemonth from the date on which the census was taken.*

The cost has been altogether insignificant when compared with the magnitude of the undertaking and the character of the work. The total charge amounted to 21,500*l.*, or less than one-third of a farthing per head of the population; that is, about one-fifteenth part of the cost of the late elaborate census of England and Wales, allowance being made for the difference in the number of the population.

IV.—*Density and Distribution of the Population.*

The vast population which the census of Bengal brought to light was something so unexpected, that some of our best-informed officials at first refused to credit the results. A keen scrutiny of the figures, however, and the application of a variety of tests, have now convinced most people of the general trustworthiness of the census tables. Indeed the results are not really such as should have taken anyone by surprise. Our ignorance in the matter is to be attributed partly to official carelessness, and partly to our own want of reflection. The census of the North-Western Provinces had disclosed a density of 361 persons to the square mile, and, as I pointed out in a paper I read before the Social Science Association of Bengal in 1869, "the Lower Provinces are quite as well cultivated as the North-West "Provinces, and there is every reason to suppose that they support "an equally dense population." In that same year, the census of Oudh disclosed the still higher average of 474 souls to the square mile, over an area of 24,000 square miles. But, besides the inferences that might have been drawn from these figures, statistics were not altogether wanting, even in regard to Bengal itself. Dr. Buchanan Hamilton, who was employed by the Court of Directors, in 1807-14, to carry on a statistical survey of the northern districts of Bengal, estimated a population of 15,443,220 for some 37,000 square miles. The present census gives 14,926,337 souls, or within three or four per cent. for what appears to be the same tract of country. In 1813-14, a civil servant, Mr. Bayley, found that there were over 600 souls to the square mile in the district of Burdwan; the census figures give the average for the district as it then stood at 610 to the square mile. Other computations doubtless were made which fell wide of the mark, and, besides the difficulty of distinguishing estimates which were probable from those which were absurd, mistakes were increased by clerical errors perpetuated without observation.* So late as 1870, the population of some districts was gravely and officially stated at a third, a fourth, and even a seventh, of what has now been ascertained to be the correct figure.

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* It should be stated that in Calcutta and its suburbs the municipal authorities took the census and compiled their own returns.

In a country like Bengal where a large proportion of the land yields two crops a year, where the food of the people consists almost entirely of rice, where there are no moral checks to the increase of the population, where marriage is universal, and where the only positive checks are famine and disease, we must expect to find a population far in excess of what we are accustomed to see in Europe. The simple habits of the people enable a naturally fertile soil to feed a much larger number of mouths, than the same extent of highly cultivated land would support in this country. Sir G. Campbell estimates the food-producing area at not more than half an acre per head. Statistics on this point are not available in Bengal, but the statement is supported by the following calculation. In a good harvest, an acre of land will yield 12 maunds of rice of 80 lbs. to the maund. A family of three persons, it is said, consume 4 lbs. per diem, or 18 maunds a year. The result is that each person is supported by the produce of half an acre. Such, indeed, is the fertility of the soil that, notwithstanding its enormous population, Bengal exports large quantities of food grains (estimated in a good year at over 500,000 tons), while the area taken up by such crops as jute, indigo, opium and oil-seeds, is something very considerable. With such abundance, therefore, in ordinary years the population goes on multiplying its numbers without fear of transgressing the margin of subsistence. It is only when a year of scarcity intervenes, or when epidemic disease commits its ravages, that any check whatever is imposed on the natural increase of the people.

For the entire territory subject to the Lieutenant-Governor of Bengal, some 250,000 square miles, the population averages 270 souls to the square mile. But it has already been pointed out that this population is very unequally distributed throughout the country. If we exclude the non-regulation provinces of Assam and Chota Nagpore, and a few of the outlying districts of Bengal, Behar and Orissa, we have for the strictly "regulation" districts, as they are called, a population of 57 millions over an area of 112,638 square miles, giving an average of 505 persons to the square mile.

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* To give one instance out of many. In the Bengal Administration Report for 1870-71, the population of the district of Tipperah was stated to be 100,000 souls. In the Report for 1866-67 I find it given at 1,000,000. In one of the intervening years a cipher appears to have dropped out of the type, and the mistake was repeated year after year without detection.

	Area.	Population.	Persons per Square Mile.
Bengal, exclusive of Darjeeling, Jelpigoree, Cooch Behar, Cachar, Hill Tracts, and Hill Tipperah	67,992	35,413,897	521
Behar, excluding Sonthal Pergunnahs............	36,929	18,476,814	500
Orissa, without Tributary Mehals	7,717	3,034,690	392
Total for Regulation Districts....	112,638	56,925,401	505

Even within this area there are several tracts comparatively sparsely peopled. All the districts of Behar south of the Ganges run more or less into the southern hills; on the north they skirt the sub-Himalayan range. Parts of Bancoorah and Midnapore are as barren as the province of Chota Nagpore with which they march. In Northern Bengal there is a wide tract of thinly populated country in the districts of Purneah, Dinagepore and Maldah. In Sylhet and Mymensingh, too, there is a considerable quantity of jungle and hilly country, which greatly reduces the average of population in those districts.

If these exceptional tracts be eliminated, the cultivated champaign of Bengal and Behar will probably show an average of not less than 650 souls to the square mile, or at least one person to every acre of gross area. In Orissa the average is not perhaps so high, as that country has not yet recovered from the effects of the famine of 1866. But in parts of Bengal and Behar even this large average falls short of the actual density of the population. For the vast district of Tirhoot the average is about 700 to the square mile; in Patna 740; in Sarun or Chupra 780. In the metropolitan districts of Hooghly and the Twenty-four Pergunnahs, which include the capital, Calcutta, we find, over an area of 4,220 square miles, a population of nearly 1,000 souls to the square mile. Even if the city of Calcutta be left out of the calculation, the average is still some 900 persons to the square mile. On the banks of the Hooghly, from the borders of the Sunderbuns as far north as Moorshedabad, the population varies from 3,000 to 8,000 souls to the square mile. There can be little doubt indeed, that the Gangetic plain of Behar and the alluvial delta formed by the river system of Bengal, are tracts of country as densely populated as any in the world.

It is only a few months since Sir George Campbell, in connection with this subject, wrote as follows:—

" This scantiness of the land compared to the population sug-

" gests the great social difficulties which may arise if population " much further increases. And the same calculation renders terrible " the thought of what might happen if the seasons, which our ex- " periences of 1871-72 show to vary so much, should ever take so " unhappy a turn as to lead to a really serious failure of the crops in " these provinces. With such few means of communication and good " prices, the natives certainly do not hoard grain as they used to " hoard it. In case of failure, how many railways and steamers " would suffice to bring food for sixty or seventy millions of people, " and where should we get food to bring? The grain-exporting " countries of Asia are very few and small, the grain-importing " countries are many. It may be some consolation, however, to " observe that no very general failure throughout Bengal is known " to have occurred in times with which we are acquainted. The " inquiries of the Famine Commission regarding previous famines " show from official papers that the accounts in popular histories of " the great famine of 1770 have been very greatly exaggerated. " That was a very great and severe famine, but it did not extend " to the eastern districts, and so far from the country relapsing into " jungle from which it did not recover for generations, as has been " supposed, the land revenue was within a year or two after the " famine greater than it had ever been."

V.—*Nationalities, Races and Tribes.*

With such an enormous population, Bengal naturally comprises numerous varieties of race. To a certain extent, each of the five provinces may be said to have its distinct nationality, though it is to be observed that the ethnical boundary and the political boundary do not always coincide. Bengal Proper is inhabited by a heterogeneous race of mixed Aryan and aboriginal extraction, in every possible stage of development. A Bengali may, on the one hand, be of the purest Aryan type, or, on the other, he may scarcely differ in ethnical characteristics from the lowest aboriginal. Speaking generally, they are not a robust or muscular race, yet are capable of greater fatigue and endurance than their purely vegetable diet and moist habitat would lead one to suppose. In active pursuits they are timid and indolent, but in intellect keen and subtle. Besides inhabiting Bengal Proper, they are also to be found in most of the districts which march with its political boundary; and their numbers may be roughly estimated at from 37 to 38 millions. Whether the people of Orissa are more nearly allied to the Bengalis, or to their western and southern neighbours, is as yet open to question, but there seems no doubt that they have acquired certain peculiarities of physiognomy and character from their isolated position. More timid and conservative than the Bengalis, the Ooryas have for many centuries been one of the most bigoted and priest-ridden peoples in India. In Orissa, taking the plain and hill country together, they number about 4 millions; but, like the Bengalis in Bengal Proper, they slightly overstep the boundaries of the province. The people of Behar are Hindustanis. They speak Hindee, the language of Upper India, and are a hardier and more manly race than the inhabitants of Lower Bengal, though inferior to them in intellectual power. Their numbers may be reckoned at 20 millions. The Assamese speak a dialect closely allied to Bengali. Like the Bengalis, they are more or less a mixed race, with a large infusion of Indo-Chinese blood. The earliest historical notices we have of the country mention it as part of the ancient Hindu kingdom of Kamroop, but with the fall of the Pâl dynasty it became a prey to contending factions, and appears to have been overrun by successive hordes of aboriginal tribes, who swarmed into the rich valley from India on the one side and from Burmah on the other. These tribes have still their representatives in Assam, but they are fast losing their individuality in the process of fusion which is going on. The purest Assamese are said to be the Ahoms of Seebsaugor, but few have preserved their lineage undefiled. They number less than 2 millions.

Besides these four distinct nationalities, Bengal contains a vast number of indigenous or non-Aryan tribes, in a more or less primitive stage of civilisation. Regarding the origin of these tribes, or their relation to each other, very little is known; we call them the aboriginal inhabitants of the country because they are the oldest inhabitants of whom we have any certain knowledge, dating as they do from before the Aryan invasion. In the present day they are principally found in the mountain ranges which surround Bengal on the north and east, and in the highlands of Chota Nagpore and Orissa. Some of them are fine-looking specimens of the human family, but others are mere savages both in manners and appearance. At least one of these tribes still clothes itself after the fashion of our first parents. Many of them retain and habitually use their own aboriginal tongues, while others have adopted the language of their Aryan conquerors. Their manners and customs are often extremely curious, and have attracted much observation of late years. The most important of them are the Kôls and Gonds of Chota Nagpore; the Sonthals; the Lepchas and Mechs of Darjeeling; the Garos, Khasias and others in Assam; the Kookis, Lushais, and other hill tribes of the eastern frontier, and the Khonds of Orissa. The purer aborigines may be reckoned at about 3½ millions; those who have become partially Hinduised, at 10 million souls.

The mention of Hinduised aborigines perhaps requires some explanation. The fact is, it is absolutely impossible to draw the line between the various Hindu races and the aboriginal tribes, so insensibly do they merge into one another. In the first place we have no clear definition of what we mean when we speak of a Hindu. Sometimes the term is used in a generic sense, to denote all or any of the inhabitants of India. Sometimes it is used in a religious sense, to designate the great body of the people who are not Mahommedans. Sometimes again a distinction is insisted on between what are called pure and impure Hindus. But what pure Hinduism consists in, and what is to be the shibboleth by which the orthodoxy of the various races of India are to be tried, has never, so far as I am aware, been laid down by competent authority. Now, in Bengal we have a great variety of aboriginal and semi-aboriginal tribes, who have been brought into contact with the Aryan Hindus, and many of whom have been partially civilised by them. Living for centuries side by side, these two elements have acted and reacted on each other. On the one hand the savage tribes have renounced their barbarism and adopted many of the rites and customs of the invaders; on the other the Hindu religion has itself been debased from the Vedic monotheism of the Middle-land. Those who have made the subject their study, tell us that the Hinduism of the present day is as unlike the Hinduism of the Vedas, as we may suppose the modern Bengali ryot is unlike his Aryan prototype. And the cause of this, they go on to say, is due to contamination from aboriginal sources. Hinduism has been lowered from its pure type in order to meet the necessities of the indigenous tribes among whom it took up its home. And the result is, that just as we find at the present day tribes in every stage of civilisation, so does the Hindu religion in Bengal assume a Protean form, from the austere rites practised by the shaven pundits of Nuddea to the fetish-worship of the semi-barbarous Boona. The Bouris, Bagdis, and Chandals of the lower delta; the Kochs and Poliyas of Dinagepore; the Dosadhs and Musahars of Behar, with many others, are probably all of aboriginal extraction, but have adopted as their religion a form of Hinduism, and are now-a-days generally recognised as Hindus. "It is a great mistake," writes Sir G. Campbell, who has given considerable attention to this subject, "to suppose that the Hindu religion is not proselytising. "The system of caste gives room for the introduction of any num-"ber of outsiders; so long as people do not interfere with estab-"lished castes, they may form a new caste and call themselves "Hindus if they like; and the Brahmans are always ready to "receive all who will submit to them and pay them. The process "of manufacturing Rajpoots from ambitious aborigines goes on "before our eyes, and both in the west and the east many new "Hindus exist who are in no degree Hindu in blood."

Some idea of the present state of these aboriginal tribes may be gained by comparing the past history of our own country. In the seventh and eighth centuries of our era, England, as I imagine, presented a very similar appearance, from an ethnical point of view, to that which we find at the present day in Bengal. The Anglo-Saxon invaders spread themselves over the land, and gave their language, their manners and customs, to the aboriginal Welsh whom they had conquered. Some of these Welsh took refuge in the mountains and fastnesses of Strath-Clyde, Wales and Cornwall, where they still preserved their independence and their native speech. But the vast majority were doubtless absorbed by the victorious Saxons into the English nation. Particular tribes lost their individuality, their differences being merged in one common stream, wide enough and deep enough to embrace all. So in Bengal the aboriginal tribes which remained in the plains are fast losing all traces of their origin, being gradually absorbed in the nationality, if I may use the term, of their Aryan conquerors. Only in the hills and in those primeval forests which have proved inaccessible to Hindu and Mahommedan invader alike, do we now find the remnants of those tribes which formerly peopled the whole face of the country. That the great bulk of them have been swallowed up and merged into the nationality of their conquerors, sufficient traces remain to leave no room for doubt.

VI.—*Religions. Mahommedans in Bengal.*

Among the many interesting facts established by the census, one of the most surprising is the extent to which the religion of Mahommed is professed by the people of Bengal. The total number of Mahommedans in the Bengal provinces exceeds twenty and a half millions (20,664,775), being nearly one-third of the whole population. Nor are these twenty millions of Mahommedans distributed throughout the country quite in the manner that our previous knowledge would have led us to expect.* The vast majority of them are found in Bengal Proper, where they number 17½ millions against 18 millions of Hindus. In Behar, where we should have expected perhaps to find them most numerous, they hardly number more than two-and-a-half out of a total population of nearly twenty millions. The fact is that in Bengal Proper, the Mahommedans as a rule are the cultivators of the soil, day-labourers, or the humbler sort of mechanics; and so they do not come so prominently or so frequently under the notice of Europeans as in Behar where their position is reversed, the Mahommedans of Behar belonging mostly to the upper orders and dwelling in towns like Patna, Barh and Behar. Throughout Bengal Proper, east of the line of the Bhagirutty or Hooghly river, the

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* Even Mr. Beames has fallen into error on this point. See his "Comparative Grammar of the Modern Aryan Languages of India," Introduction, pp. 39 and 40.

Mahommedan element may be said to constitute at least one-half of the population. In parts of that tract, as in the districts of Rajshahye, Bogra, Noacolly and Chittagong, they form as much as three-fourths. These are very remarkable facts, and facts regarding which we have absolutely no historical evidence whatever. How comes it that the Mahommedans are infinitely more numerous in Bengal Proper than in the Upper Provinces of India, and how is it that in Bengal more than elsewhere, they seem to form the cultivating and the labouring class?

I have already spoken of the vast numbers of aboriginal tribes, the remnants of whom are still to be found scattered throughout Lower Bengal. These tribes, swept down the Gangetic valley by the advancing wave of Aryan immigration, were brought to bay, as it were, in the sea-girt province of Bengal. There they were partially incorporated into the Hindu system, or became the slaves of their Aryan conquerors. It would be as great a mistake to suppose that the Aryan invaders exterminated or drove out all the aboriginal inhabitants of Bengal as it would be to suppose that the Saxons exterminated all the ancient Britons who did not flee into Wales. Indeed, so far from displacing the indigenous children of the soil, the Aryan element, as we know, was only able to hold its own by frequent importations of fresh blood from Upper India. In order to exist at all, in fact, Hinduism in Bengal had to assume a baser form than elsewhere. It was compelled to assimilate and adopt the barbarous practices and superstitions of those whom it sought to embrace within its fold. Its Pantheon became crowded with elephant-gods and bloodthirsty goddesses, of whom the primitive Aryans knew nothing. The absorption, however, of the aboriginal in the Aryan element was far from being complete. The indigenous tribes, though possibly admitted into the social and religious system of the Hindus, found themselves at the very bottom of the scale. Under an exclusive caste system, they were merely the despised serfs of a victorious and superior race. They were the hewers of wood and drawers of water, for a set of masters in whose eyes they were unclean and altogether abominable. Such was the condition of these tribes, we may suppose, at the time of the Mahommedan invasion. To such people that invasion would not be altogether unwelcome. In the eye of Islam, at any rate, all men are equal. We can easily understand, therefore, that when once the Mahommedan conquest was extended to Bengal, large numbers of these miserable helots would hasten to profess the religion of their conquerors. They thus not only escaped from their ignoble position under the Hindu system, but they might aspire to be the social equals of their late masters.

A strong proof that this is in reality the true explanation of the large number of Mahommedans now found in Lower Bengal is afforded by the close resemblance between them and their fellow-countrymen who still form the low castes among the Hindus. That both were originally of the same race seems sufficiently clear, not only from comparisons of physical characteristics, but from the similarity of their language, manners and customs. The Bengali Musalman is still in many respects a Hindu. Caste distinctions, one of the main objects of which would seem to be to prescribe the limits of the *jus connubii*, are to a certain extent as prevalent and as fully recognised among the Mahommedans of Bengal, as among Hindus. As Buchanan pointed out sixty years ago, they not unfrequently meet at the same shrine, both invoking the same object of worship though perhaps under different names. Instead of commencing a letter "In the name of God" (which is the orthodox fashion), the Bengali Musalman will superscribe the name of some Hindu deity. He speaks the same language, and uses precisely the same nomenclature and the same expressions of thought as his Hindu neighbour. Their very names are identical, the prefix of Shaikh alone distinguishing the convert to Islam.

I think, therefore, there is reason to believe that, the Musalman invasion following upon the Aryan conquest of Bengal, before the Hindu religious system had had time to consolidate itself, as in Upper India, large numbers of the old inhabitants of the country, who occupied only a helot position under the Hindu system, embraced the religion of their new conquerors and became Mahommedans. This is, indeed, the only theory by which it seems to me to be possible to explain the existence of so large a body of Mahommedans in Lower Bengal.

Some corroboration of this theory seems to be afforded by a consideration of the census results themselves. One of the most interesting points in connection with the aboriginal tribes is the apparent fact that, so far from their being in process of dying out, as our experience in other parts of the world might lead us to expect, their numbers are under British rule rapidly on the increase. Judging from the number of children among them, as disclosed by the census, they would seem to be the most prolific among Her Majesty's Indian subjects. Among the Sonthals and the Kôls of Chota Nagpore, for instance, children under twelve years of age are remarkably numerous, the census results being confirmed in this respect by the experience of all those who are acquainted with that part of the country. In Bengal Proper the children under twelve compose 33·6 per cent. of the population; among the aboriginal tribes of Chota Nagpore and the Sonthal Pergunnahs they compose as much as 40 and even 45 per cent. Now in the central and eastern divisions of Bengal, where the Mahommedans are most numerous, the proportion of children among them is very considerably in excess of what it is among the Hindus. In the Dacca and Chittagong divisions the percentage of children among Mahommedans is as high as 38·2 and 40·4, against 31·5 and 32·2 among Hindus respectively. Such a remarkable difference is not found either in Behar or in Upper India. In Behar the Hindus exhibit a larger percentage of children than the Mahommedans. In the North-West Provinces the children are more numerous among the Mahommedans, but the difference is very slight, the proportion being 33·2 per cent. among Hindus and 33·7 per cent. among Mahommedans. Only in Bengal Proper do we find a striking difference in the comparative fertility of Hindus and Mahommedans. May not the explanation of this difference lie in the circumstance that the great bulk of the Mahommedans of Lower Bengal have been drawn from the aboriginal tribes, and that they still retain to some extent the wonderful fertility which it is proved that those tribes possess, wherever we find distinct communities of them in the present day?*

In opposition to this theory it may be objected that if the Mahommedans of Lower Bengal are really converts from the helot castes of Hinduism, the same proportion of children ought to exist among those helot castes that have not been converted. Unfortunately, the census tables do not enable us to examine this point, which is one that ought to be borne in mind at the next census. It may be stated, however, that the helot castes in Bengal do not number more than 5 millions, against 12½ millions of purer Hindus; and Aryan influences may possibly have affected the fertility of even the lowest castes of Hinduism.

The Mahommedans of Bengal, as a rule, practise monogamy just like the Hindus, though perhaps divorce and re-marriage is more common among the former. Even granting a laxer morality, however, in this respect, it may be questioned whether it would have a tendency to bring about the result which is under consideration. A lax morality is not generally considered to conduce to a higher degree of fecundity. It should further be mentioned that the Mahommedans of Bengal are the class from which the native sailors are taken, and some might therefore suppose that the comparative excess of children among the Mahommedans of the eastern districts was to be explained by the absence of the adult males on seafaring pursuits. The number of lascars, however, employed in the commerce of the Indian seas, is too small to account for the phenomenon we have observed. It is true that the number of children among

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* Children are also found to be very numerous in the Central Provinces, which contain a large aboriginal population. It is stated that "the proportion of "children is greater among the aboriginal tribes than among Hindus, and among "Hindus greater in those districts in which there is a large aboriginal population "than in others;" and the writer of the Census Report considers it "possible "that climatic influences are at work, if it be not intermixture of blood between "the two races." In the Central Provinces, as in the North-West, the age of each individual was carefully noted.

Mahommedans is greatest in the Chittagong district, which supplies the bulk of the lascars who go to sea, but it is very nearly as great in Sylhet and Cachar, which are not maritime districts at all; while the excess of children, as compared with Hindus, is even greater in Rajshahye and Patna, which are also inland districts. This will be seen from the following table:—

Districts.	Percentage of Mahommedans in Population.	Percentage of Children in Total Population.	Percentage of Children in Hindu Population.	Percentage of Children in Mahommedan Population.	Difference.
Burdwan	17·1	29·4	29·3	29·9	0·6
Bancoorah	2·6	33·6	33·3	33·0	−0·3
Beerbhoom	16·1	31·4	30·6	34·4	3·8
Midnapore	6·2	32·3	31·8	35·7	3·9
Hooghly with Howrah	20·1	31·2	29·1	30·2	1·1
Total for Burdwan Division	12·8	30·9	30·6	31·5	0·9
Twenty-four Pergunnahs	38·4	28·3	27·0	30·1	3·1
Nuddea	54·3	32·9	29·5	35·7	6·2
Jessore	55·5	32·2	30·7	33·4	2·7
Total for Presidency Division	48·2	30·8	28·7	33·0	4·3
Moorshedabad	44·6	32·1	29·3	35·3	6·0
Dinagepore	52·8	35·1	34·7	35·4	0·7
Maldah	46·0	34·6	32·6	37·0	4·4
Rajshahye	77·7	36·1	29·2	37·9	8·7
Rungpore	60·0	32·4	30·2	33·8	3·6
Bogra	80·7	34·4	29·1	35·6	6·5
Pubna	69·9	35·2	29·2	37·7	8·5
Total for Rajshahye Division	61·0	34·0	31·0	36·0	5·0
Dacca	56·7	35·6	31·3	38·8	7·5
Furreedpore	58·1	31·8	29·1	33·8	4·7
Backergunge	64·8	35·8	31·8	37·9	6·1
Mymensingh	64·7	35·4	30·6	38·0	7·4
Sylhet	49·7	37·3	33·3	41·1	7·8
Cachar	36·3	36·0	33·8	40·0	6·2
Total for Dacca Division	59·1	35·5	31·5	38·2	6·7
Chittagong	70·5	39·8	34·1	42·1	8·0
Noacolly	74·7	38·3	31·8	40·4	8·6
Tipperah	64·8	36·4	31·4	39·2	7·8
Total for Chittagong Division	67·4	37·9	32·2	40·5	8·3
Total for Bengal	48·8	33·6	30·5	36·6	6·1

The number of persons professing the Christian religion in Bengal is less than 100,000. Of these some 20,000 are Europeans; 24,000 persons of mixed European and native extraction, and about 50,000 native converts.

VII.—*Sex.*

I proceed now to examine the census results in regard to the sexes of the population. It has been said to be a law of nature that, while slightly more males are born into the world than females, the sexes of adult age are about equal in number. In European countries it has generally been found that the females of all ages are in excess of the males. At the last census of the United Kingdom the females exceeded the males *at home* by 892,088 in a population of 31,628,338, or, after allowing for men in the army, navy, and merchant service abroad, by 663,088 in a population of 31,857,338. In Sweden, Norway and Holland, too, it is found that there are from 104 to 105 females to every 100 males; and the phenomenon is sometimes explained by the maritime position of those countries and the attractions of a seafaring life, which draw away a certain number of the males. The disparity of the sexes in these countries, and especially in the United Kingdom, is also due, in a large measure, to the greater number of males who emigrate to foreign lands. In fact, the phenomenon of a preponderance in the female element of the population is not confined to maritime countries in Europe. At the last census of the German Empire, taken on the 1st December, 1871, the females are to the males in the ratio of 103·7 to 100. The excess of females in Germany, therefore, though less than in England, where they bear to males the proportion of 105·4 to 100, is still considerable; and though it may partly be accounted for by the casualties of the late wars in which Germany has been engaged, it is borne out by what we know of emigration from Germany to the United States of America and elsewhere. In Russia, I find from our *Journal* for September, 1872, the proportion of females to every 100 males of the population is 102·5, in Poland 106·8, and in Finland 105·4. In short, I believe it is accepted as the rule, though of course there are exceptions, that in Europe generally the females are more or less in excess of the males.

In India, on the other hand, it has usually been found that the males are greatly in excess of the females. In the North-Western Provinces the census of 1865 disclosed only 86·5 females to every 100 males; the census of 1872 raised this ratio to 87·5. In Oudh the census of 1869 gave 93·0 females to 100 males. In the Punjab there are said to be only 81·8 females to 100 males; in the Central Provinces 96·6, and in Berar 95·5. So far as our experience goes, then, the females are apparently in a minority all over India. The disproportion is greatest in the Punjab, the North-Western Provinces come next; then Oudh; and then Berar and the Central Provinces. In Bengal the sexes are very nearly equal, though there is still a slight preponderance in favour of the males. Of 66,672,679 souls, 33,398,605 were returned as males and 33,274,074 as females. There are thus 99·6 females to every 100 males; in other words, the females number 49·9 per cent. of the total population.

Several ingenious theories have been put forward to explain this apparent contradiction between the laws of nature in the East and in the West. Mr. Plowden, a Fellow of this Society, who examined the subject at great length in his official report on the census of the North-Western Provinces in 1865, expressed an opinion that the excess of males was mainly, if not entirely, due to an excess of male *births*, and he drew attention to two theories in explanation of this phenomenon, which have found acceptance with some European statists and physiologists. These theories are—

(1.) That the ratio of male to female births varies with the temperature of the climate, the proportion of male births increasing as we approach the tropics.

(2.) That the average difference in age between husband and wife in India being greater than in Europe, the result is a greater proportion of male births.

A proof of the excess of male births has usually been held to lie in the preponderance of the male element among children under a certain age; a little consideration, I think, will show that no great weight is to be attached to this apparent phenomenon. It is quite true that in every Indian census, with one exception, the percentage of males is greater among children than among adults. Thus:—

Province.	Year.	Percentage of Males in the Total Population.	Percentage of Males among Adults.	Percentage of Males among Children.	Difference.
Punjab	1868	54·4	54·5	54·2	−0·3
North-West Provinces	'65	53·6	52·4	55·8	+3·4
"	'72	53·3	52·7	54·6	+1·9
Oudh	'69	51·8	50·5	54·3	+3·8
Central Provinces	'66	51·2	49·9	53·0	+3·8
"	'72	50·9	50·1	52·1	+2·0
Bengal	'72	50·1	47·7	54·5	+6·8

Now in Bengal the proportion per cent. of adults and children of each sex is as follows:—men, 31·3; boys, 18·8; women, 34·2; girls, 15·7. Thus, although the boys exceed the girls, the adult women are in excess of the men to the same extent, the total numbers of the sexes being nearly equal. This was found to be the case in every part of the country, the figures presenting an uniformity singularly suggestive of their accuracy. The explanation is, to my mind, simple enough. The natives of India keep no record, and have but the vaguest idea, of their age. Girls arrive at maturity sooner than boys, and thus many of them have been returned as women, whilst males of the same age have been classed as boys. In India girls are married while mere children, and are not unfrequently mothers at the age of 14 or 15. They thus come to be looked upon as women at an earlier age than that at which boys would be considered to arrive at manhood. The large excess of males, therefore, among the children is fictitious and deceptive, and no argument can be based upon it as to an excess of male births. It is far more probable that a large number of girls figure as women in the census returns, and that the proportion of the sexes at different ages has never been correctly ascertained.

Still we have the apparent fact that in India the males are everywhere in excess of the females—an excess which, though insignificant in Bengal, assumes remarkable dimensions in the North-West Provinces and the Punjab. Now, it is a curious circumstance that, amongst children under 12 years of age, the percentage of males is much the same in all provinces (even including the Punjab), for which I have the requisite figures. The average is about 54 per cent. It is therefore amongst adults that we find the greatest variation in the proportion of the males—a variation ranging from 47·7 in Bengal, to 54·5 in the Punjab. But if girls on the eve of maturity are passed off as women in Bengal, we may fairly assume that the same error is committed in other provinces; and as the percentage of males among children is nowhere much greater than in Bengal, it follows that the great deficiency of women noticed in the North-West Provinces and the Punjab must occur among the adults. So far, then, from the excess of males being attributable to an excess of male births, the figures might be used to show that it was rather due to the males outliving the females. In point of fact, however, our Indian statistics are not yet sufficiently trustworthy to justify the deduction of general laws. In Bengal, for instance, as I have explained, the census was an entire novelty, and though, as I believe, the enumeration was made with a fair approximation to accuracy, and though in this respect it will probably be found to bear comparison with any other Indian census, still, until the results have been confirmed by further inquiry, it would be only waste of time to attempt to base physiological theories upon them. Moreover, as the numbers of the sexes are nearly equal in Bengal, the necessity of accounting for any such disproportion as appears to exist in other provinces, does not seem to arise on the present occasion.

The preponderance of males, which has been so marked in previous Indian censuses, is sometimes explained by supposing that the number of women, from motives of fear or delicacy, is understated. If we are to suppose that this has been the case in Bengal, the result would be that the females would to a greater or less extent outnumber the males, and so bring that country into accord with European experience. But, as if to show that this cannot be the true explanation, it has been found that whereas it might be expected that the Musalmans would be the more scrupulous in declaring the true number of their womankind, the excess of males is always greater among Hindus than among Mahommedans. Thus, in the North-West in 1865 the percentage of males among Hindus was 55·37, and among Mahommedans 52·79 only.* In the Punjab there are 81·66 females to every 100 males amongst the Hindus, but amongst the Mahommedans as many as 85·99. In Oudh, 48 per cent. of the Hindu population is of the female sex, and 49·6 per cent. of the Mahommedan. In Bengal there is little difference in this respect. For the whole territory, the males among Hindus number 50·0 per cent. of the population, among Mahommedans 50·3. For Behar, however, if we exclude Purneah and the Sonthal Pergunnahs, which are to a great extent Bengali districts, the figures are in accord with those for the Upper Provinces. Thus the percentage of males in the two communities in the strictly Behar districts is as follows:—

District.	Hindus.	Mahommedans.	Difference.	District.	Hindus.	Mahommedans.	Difference.
Patna	49·2	46·0	3·2	Sarun	48·3	48·0	0·3
Gya	49·3	45·8	3·5	Chumparun	51·2	50·9	0·3
Shahabad	48·6	46·8	1·8	Monghyr	49·6	47·9	1·7
Tirhoot	50·1	49·1	1·0	Bhaugulpore	50·2	49·9	0·3

In Bengal Proper, on the contrary, with one or two exceptions which may easily be accounted for, the percentage of males is greater among the Mahommedans than among the Hindus. The exceptions are mainly in the maritime districts of Chittagong and Noacolly, where, as before explained, a certain number of the Mahommedan males are always absent at sea. We have, then, this result, that whereas the figures for Behar are in accord with those obtained for the Upper Provinces of India, the figures for Bengal Proper show little or no difference between the Hindu and Mahommedan communities in this respect, the percentage of males being slightly greater among Mahommedans than among Hindus. May not the explanation of this phenomenon be, that whereas the Mahom-

* The census of 1872 has reduced these figures to 53·5 and 52·1 respectively.

medans of other provinces may to a greater or less extent be said to have a distinct nationality of their own, the Bengali Mahommedans for the most part belong to the same ethnical stock as the Bengali Hindus?

VIII.—*Large Proportion of Children.*

From what I have said above as to the futility of basing calculations upon the returns which the natives of India make in regard to their ages, it follows that any remarks in respect to the proportion of children in an Indian population must be received with considerable caution. The subject, however, is one of great interest, and with this warning, I may be excused if I devote a few minutes to its consideration.

In his report on the census of the North-West Provinces in 1865, Mr. Plowden brought to notice the excessive proportion of children in India as contrasted with European experience; and each successive census in that country has only served to bring the phenomenon into greater prominence. In the North-West Provinces the percentage of children under 12 in the population was, in 1865, 35·58; in 1872, 33·3. In the Punjab it was 35·42; in Oudh, 36; in Bengal, 34·5. In Berar, the age at which children were distinguished from adults was taken to be 13, and the children were found to compose 35·7 per cent. of the population. In the Central Provinces, when the limit of age was 14, the children numbered 39·9 per cent.; with the limit at 12 in 1872, the percentage fell to 38·1.

In England, which, of all European countries, is said to have the highest proportion of children, the percentage up to 12 years of age is 29·85. In every province of India, therefore, so far as we may trust our statistics, the ratio which children bear to the rest of the population is considerably in excess of European countries. The excess is least in Bengal, but even in Bengal the children under 12 would seem to be no less than 15 per cent. more numerous than they are in England. Moreover, if there is any ground for the supposition that a large number of girls have been returned as grown-up women, it follows that the number of children in Bengal is really understated at the above figure, and that some 3 per cent. of the population should be added to it in order to arrive at the true proportion. Thus the proportion of children in the total population would amount to 37·6 per cent. against 29·85 per cent. in England. In other words, three-eighths of the population of Bengal are under 12 years of age, as against less than three-tenths of the population of England. Supposing these figures are no more than approximations to the truth, we must conclude, either that more children are born proportionately in India than in England, or that life is shorter in the former country than in the latter; or it may be that both these causes combine to bring about this remarkable result. Looking at the singular uniformity which marks the proportion of children, not only in the several provinces of India, but in the different parts of the same province, it is impossible to reject the figures as altogether inaccurate.

In a paper which I read four years ago before the Social Science Association of Bengal, I made the following remarks, which I may be permitted to repeat here:—

" The wider prevalence, I may say the universality, of marriage " in this country will account for a larger proportion of births among " the population. Marriage and the raising of offspring is considered " a religious duty by the Hindu, and both sons and daughters are " early provided for in this respect by all right-minded and orthodox " parents. So important is it considered to have male offspring by " whom the funeral rites may be duly celebrated, that not only is a " second marriage permitted to males, but a pretext is thus found " even for polygamy. It is quite possible, again, that owing to the " earlier age at which marriage is consummated as compared with " European countries, larger families as a rule should be the result. " It may, of course, be urged that the interdiction of widow " marriages must have an injurious effect upon the increase of the " population, but after all, I should be inclined to doubt whether the " proportion of Hindu widows at all approaches the proportion of " unmarried women in England or other European countries. And " we must further bear in mind, that moral restraints upon marriage " do not exist in this country. The information which this Associa-" tion lately collected in regard to the agricultural classes, conclu-" sively shows that marriage takes place as a matter of course, and " is scarcely, if at all, influenced by any consideration of the means " of living.

" That the rate of mortality in this country is higher than in " Europe will only be conclusively demonstrated when a system of " mortuary returns shall have been established upon a satisfactory " basis. Such, however, is the universal belief of those who have " studied the question; and if we consider the earlier maturity of " life in this country, and consequently the earlier expenditure of " the forces of nature; or, if we regard the absence of many of those " comforts, or rather necessaries, in the way of food, shelter and " medical skill, which in civilised countries are such prophylactics to " longevity; or, lastly, if we contemplate those vast calamities, such " as famine and pestilence, which periodically devastate whole " provinces, we must admit that *primâ facie* there are not wanting " causes sufficient to produce such a result."

I have already remarked upon the large proportion of children among the aboriginal tribes as well as upon the fact that in Bengal Proper the proportion of children is everywhere greater among Mahommedans than among Hindus. I pass on to examine the question in relation to the sex of the children.

It has been stated that, as a rule, the boys exceed the girls by about 3 per cent. of the population. The following table shows the excess in each division, and in the two great religious classes:—

Division.	Percentage of Boys in Total Population.	Percentage of Girls in Total Population.	Difference.	Difference among	
				Hindus.	Mahommedans.
Bengal—					
Burdwan	17·1	13·8	3·3	3·4	3·9
Presidency	17·2	13·6	3·6	3·1	4·0
Rajshahye	18·8	15·2	3·6	3·0	4·0
Dacca	19·5	16·0	3·5	3·1	3·8
Chittagong	20·7	17·2	3·5	3·2	3·8
Behar—					
Patna	18·3	16·1	2·2	2·1	2·4
Bhaugulpore	19·5	16·7	2·8	2·7	4·2
Orissa	18·9	16·6	2·3	2·2	3·5
Chota Nagpore	21·3	17·3	4·0	4·5	5·0
Assam	18·8	16·9	1·9	1·8	3·5

In every case, it will be seen, the percentage of boys exceeds that of girls—the difference ranging between 1·9 per cent. in Assam and 4 per cent. in Chota Nagpore. In Bengal Proper this difference remains wonderfully steady, ranging as it does from 3·3 to 3·6. In every case, again, the difference is greater among Mahommedans than among Hindus. Either, then, there is a larger proportion of male births among the Mahommedans, or, if we accept the supposition that a certain number of girls are returned as women, more girls are reckoned as women among the Mahommedans than among the Hindus. This is probably just what we should have expected.

On the other hand, these figures may be used to prove that many girls are not returned at all, for it would naturally be expected that if concealment is practised, it would be practised by the Mahommedans to a greater extent than by the Hindus. In other words, the excess in the number of boys over girls being greatest among Mahommedans, and, it may be added, greater among Hindus than among aboriginal tribes, this excess may be attributed to the persistent concealment of the girls. If this were really the case, however, we must recollect that two consequences would follow:—*First*, the equality of the sexes would be impaired; we should have to make allowance for a large number of concealed females, which would result in an excess of females over males, contrary to all Indian experience. In the next place, we have seen that children are already more numerous relatively among Mahommedans than among Hindus, and if we are to suppose that more girls are concealed among the former than among the latter, the result must be a still greater disproportion in the relative numbers of the children. The explanation suggested, however, seems to me to be quite sufficient. The same motives which would prompt a person to conceal the number of his womankind, would prompt him to return them as grown-up women. In the absence of any trustworthy registration of births in India, it is impossible to say whether male births do or do not predominate; and if they do, whether the predominance is more marked among Mahommedans than among other classes of the population. For the present we must be content simply to chronicle our results. Further light will doubtless be thrown upon the subject by the census in other provinces, and the day may arrive when we shall be able to interpret the social and physiological laws which are at work in India with some degree of certainty and satisfaction.

IX.—*Rural Character of the Population. Occupations.*

Dense as is the population of Bengal, an Englishman cannot but be struck by the small number of large towns which it contains. Outside Calcutta and its suburbs, there are probably not more than half-a-dozen towns with a population of 50,000 inhabitants. Calcutta itself is a city of the first rank. In the table appended to this paper, the population is entered at 447,601 souls, but it should be explained that this is really only the population of a part of the town, viz., the old city, for which courts of justice were established by royal charter, but which no more represents the whole of Calcutta than the City of London represents the whole of London. The population of Calcutta, including the suburban towns on both sides of the river Hooghly, is actually from 800,000 to 900,000 souls, according to the limits which may be assumed to mark it off from the surrounding country. The city of Patna has a population of 159,000; Dacca, 69,000; Bhaugulpore, 69,000; Gya, 67,000; Monghyr, 60,000, and Cuttack, 51,000. The supposed great city of Moorshedabad, the seat of the Nawab Nazim and his numerous followers, even if we include some outlying places not properly belonging to the city, has only 46,000 souls; and there are probably not more than a dozen others in the whole country which have a population in excess of 20,000. Even of those named the boundaries sometimes include large rural tracts, and some of them might more justly be described as groups of villages formed into an union for municipal purposes, than as towns in the European sense of the word.

The truth is, the vast population of Bengal is of an essentially rural character. The villages are closely studded and densely populated, but they have no pretensions to be designated towns. The main business of their inhabitants is agriculture. Even where they have been exalted to the dignity of towns for municipal purposes, it is no uncommon sight to find cattle grazing and rice growing in their midst. Some idea of the large proportion of the people who are engaged in agriculture, may be formed by an examination of the occupation table. According to that table, the male adult agriculturists number 12,107,680, or 18·1 per cent. of the total population. Now the male adults, as we have seen, form 31·3 per cent. of the population, so that according to this calculation *at least* three-fifths of the people practise agriculture as their occupation. I say *at least* three-fifths, for, in point of fact, this figure is much below the mark. In the first place, a large proportion of those who describe themselves as shopkeepers or artisans, have nevertheless their little patch of two or three acres of ground which they cultivate with the help of their families in addition to their other avocations. In the next place, a considerable number—probably by far the greater number—of that large and indefinite section who are simply described as "labourers," ought to be reckoned as belonging to the agricultural classes. Some may be employed in building operations, making roads or railways, or other work not strictly of an agricultural character; but the great majority doubtless occupy the position of farm-labourers. This class numbers as many as 2,659,701, and if they were all classed as agriculturists, would raise the percentage of male adult agriculturists to 22·1 upon the total population. In the third place, as explained in the note to that table, a certain number of those included in the miscellaneous section should properly fall under the heading of agriculture. Taking these points, therefore, into consideration, it is certainly within the mark to assert that at least two-thirds of the people of Bengal belong to what are called the agricultural classes. Agriculture is, indeed, the principal occupation of the province,—the raising of food-grains and other produce, either for home use or for exportation. The staple food of the country is rice, but other cereals are also grown in large quantities, especially in Behar. Among the exports may be mentioned opium, jute, indigo, tea, sugar, and oil-seeds. Opium is grown in Behar, and to a small extent in Chota Nagpore; jute is grown throughout Eastern Bengal; indigo, both in Behar and Lower Bengal; tea in Assam, Darjeeling and Cachar, and (though to a less extent) in Sylhet, Hazareebagh and Chittagong. There are few manufactures of any importance in Bengal. The invention of machinery and the appliances of steam in Europe have ruined what once formed the staple manufacture of the province and the bulk of the East India Company's annual investment. Instead of the Dacca muslins now finding their way to Europe, Bengal is one of the best foreign markets for our English piece-goods. Even the native weavers are said to prefer English twist to what they can spin themselves, and it is not surprising, therefore, that we find the art of weaving employing a much smaller proportion of the people than formerly. A few mills on the European system, for the spinning of cotton and jute, have been set up in the neighbourhood of Calcutta, but they give employment to comparatively few hands, and the weavers of Bengal are gradually being compelled to take to other and more remunerative pursuits. The whole number of manufacturers and artisans does not exceed 11 per cent. of the population. The most important of these are bricklayers, carpenters, blacksmiths, goldsmiths, weavers, potters, pressers of oil, and basket-makers. This class also includes the dealers in foods and drinks, such as confectioners, greengrocers, fishmongers and milkmen. Thus the number of artisans proper is probably not more than 5 per cent. of the total adult males. Only those arts, indeed, are practised which belong to a comparatively rude stage of civilisation, and their development can only be gradually effected as the country progresses in prosperity and wealth.

Considering the difficulty of fixing accurately the definition of a *house*, and then of inducing some thousands of enumerators to adhere to it, it is not to be wondered that there should be considerable variation in the average number of persons belonging to each household. A Bengali house generally consists of three or four buildings, arranged in the form of a quadrangle, and these separate buildings may be inhabited by different branches of the same family. Indeed, under the Hindu family system, the cognate members of a family, to the third and fourth generation, are often found dwelling together within the same enclosure, if not strictly under the same roof. Taking the average for each district, the number of souls to a house varies from 4·3 in Beerbhoom to 7·6 in Mymensing. The highest averages are found in the eastern districts, where, as we have seen, the proportion of children is the highest. For Bengal, the average is 5·7; for Behar, 6·1; for Orissa, 5·2; for Chota Nagpore, 5·1; for Assam, 5·5. Within the same district, the average for each police circle shows a remarkable uniformity. One curious circumstance, however, is to be noticed in the returns. The average number of souls to a house always seems to be less in circles containing large towns than in purely agricultural districts. In European countries we generally find the proportion of souls to a house greater among an urban population than in rural tracts. In India the reverse seems to be the case. In the Burdwan thannah the great majority of the inhabitants are collected in the town of that name, and the average is only 3·5. In Hooghly it is the same; in Serampore the average is 4; in Howrah, 4·5; in Behampore, 3·5; in Moorshedabad the same. The fact is that in Indian towns many of the so-called houses are merely shops, and a large number of the shop-keepers are traders from other parts of India, whose families do not reside with them.

In one point of view these household averages are important. Previous estimates of the population have generally been based upon an enumeration of the houses, each house being assumed to contain a certain constant number of inmates. If then the very definition of a house is uncertain, it will readily be understood that all such estimates naturally rested upon a very precarious foundation. In making such an estimate, two things are necessary. First, a correct definition of a house, to be thoroughly understood and acted on throughout the area under enumeration; and, secondly, a correct average of the inmates according to that definition. It clearly makes a serious difference in the result whether the multiple which represents the average be 3 or 5 or 8. It makes a still more serious difference if this multiple is applied to houses where it should more properly be applied to enclosures, or to enclosures where it ought to be applied to houses. Both these errors have entered into previous estimates. No definition of a house was prescribed or thought of; and the average number of inmates was assumed at pleasure. This may explain to some extent the very wide difference between the results of the actual census as now ascertained and the vague estimates with which the Government has been satisfied for so many years past.

X.—*Conclusion.*

That we have now at length more certain data to go upon, is matter for the most sincere congratulation. Imperfect though they may be in some particulars, the results of the census cannot but exercise a weighty and beneficial influence upon all the details of administration in Bengal. A flood of light has now been thrown upon problems in regard to which we were previously groping in the dark. Now, at length, we are for the first time acquainted with the real responsibilities of our position in those provinces. We see how they teem with human life, far in excess of anything known in Europe, or hitherto believed to exist even in the East. A knowledge of the distribution of the people cannot but assist the administration in supplying their wants and necessities in such important matters as justice, education, health, and the like. In view of the great emergency which now engages the attention of the Indian Government, this knowledge is, as I have said, of the very highest value.

If we contrast the state of affairs in Bengal in 1865 and that in 1873, and consider the various causes which should operate to mitigate the horrors of the present famine as compared with that of 1866, one point, as it seems to me, stands out pre-eminent. The census of 1872 has shown us the true numbers of the people with which we have to deal. In place of vague estimates, the authorities now know exactly how many mouths there are to feed, and they can calculate the quantity of food that will be required. In these calculations one-third of the population will no longer be ignored. The very density of the population, as ascertained by the census, showed the necessity for watching carefully the signs of the times. If the authorities were early on the alert, if the precautions taken to ward off or mitigate the impending calamity have been in any degree more ample and more successful than they were in 1866, may not some credit be taken for the superior knowledge of the country which has been gained by the census of 1872? For my own part, if I am not over-rating these considerations, it is no small satisfaction to think that the work on which I was so long and laboriously engaged, has demonstrated its utility within so short a period. If one of the indirect results of the census proves to be the salvation of a few thousands only from the miseries of famine, I may safely assert that those who lavished time and trouble on that gigantic undertaking will consider themselves amply repaid.

TABLE I.—*Area and Population of each District in*

District.	Area in Square Miles.	Population.	Persons per Square Mile.	Total Males.	Total Females.	Per-centage of Females on Total Population.	Adults of both Sexes exceeding 12 Years of Age.
Bengal.							
WESTERN DISTRICTS.							
Burdwan Division—							
Burdwan	3,523	2,034,745	578	995,818	1,038,927	51·1	1,435,999
Bancoorah	1,346	526,772	391	261,690	265,082	50·3	349,846
Beerbhoom	1,344	695,921	518	334,550	361,371	51·9	477,545
Midnapore	5,082	2,540,963	500	1,257,194	1,283,769	50·5	1,718,618
Hooghly with Howrah	1,424	1,488,556	1,045	722,856	765,700	51·4	1,053,874
Total	12,719	7,286,957	573	3,572,108	3,714,849	51·0	5,035,882
CENTRAL DISTRICTS.							
Presidency Division—							
24 Pergunnahs	2,788	2,210,047	793	1,155,759	1,054,288	47·7	1,526,261
Calcutta	8	447,601	55,950	299,857	147,744	33·0	381,051
	2,796	2,657,648	950	1,455,616	1,202,032	45·2	1,907,312
Nuddea	3,421	1,812,795	530	877,125	935,670	51·6	1,216,322
Jessore	3,658	2,075,021	567	1,051,126	1,023,895	49·3	1,406,655
Total	9,875	6,545,464	663	3,383,867	3,161,597	48·3	4,530,289
Rajshahye Division—							
Moorshedabad	2,578	1,353,626	525	645,335	708,291	52·3	918,764
Dinagepore	4,126	1,501,924	364	776,431	725,493	48·3	975,103
Maldah	1,813	676,426	373	331,087	345,339	51·1	442,229
Rajshahye	2,234	1,310,729	587	650,586	660,143	50·4	838,104
Rungpore	3,476	2,149,972	619	1,095,026	1,054,946	49·1	1,454,042
Bogra	1,501	689,467	459	347,864	341,603	49·5	452,522
Pubna	1,966	1,211,594	616	602,514	609,080	50·3	785,372
Total	17,694	8,893,738	503	4,448,843	4,444,895	50·0	5,866,136
Cooch Behar Division—							
Darjeeling	1,234	94,712	77	53,057	41,655	44·0	64,458
Julpigoree	2,906	418,665	144	216,893	201,772	48·2	268,041
Cooch Behar	1,307	532,565	407	278,585	253,980	47·7	355,009
Total	5,447	1,045,942	192	548,535	497,407	47·6	687,508
EASTERN DISTRICTS.							
Dacca Division—							
Dacca	2,897	1,852,993	640	905,775	947,218	51·1	1,193,512
Furreedpore	1,496	1,012,589	677	497,854	514,735	50·8	690,102
Backergunge	4,935	2,377,433	482	1,204,237	1,173,196	49·3	1,527,153
Mymensing	6,293	2,349,917	373	1,187,962	1,161,955	49·5	1,517,703
Sylhet	5,383	1,719,539	319	880,330	839,209	48·8	1,079,472
Cachar	1,285	205,927	160	110,373	94,654	46·2	131,317
Total	22,289	9,517,498	427	4,786,531	4,730,967	49·7	6,139,259

Bengal, with Details of Sex and Age, and Percentages.

Children of both Sexes not exceeding 12 Years of Age.	Percentage of Children on Total Population.	Exceeding 12 Years of Age.		Not exceeding 12 Years of Age.		Percentage on Total Population of			
		Men.	Women.	Boys.	Girls.	Men.	Women.	Boys.	Girls.
598,746	29·4	661,104	774,895	334,714	264,032	32·5	38·1	16·4	13·0
176,926	33·6	166,124	183,722	95,566	81,360	31·5	34·8	18·1	15·5
218,376	31·4	218,730	258,815	115,820	102,556	31·4	37·2	16·7	14·7
822,345	32·3	799,461	919,157	457,733	364,612	31·5	36·2	18·0	14·3
434,682	31·2	478,159	575,715	244,697	189,985	32·1	38·7	16·4	12·8
2,251,075	30·9	2,323,578	2,712,304	1,248,530	1,002,545	31·9	37·2	17·1	13·8
683,786	30·9	777,679	748,582	378,080	305,706	35·2	33·9	17·1	13·8
66,550	14·8	262,077	118,974	37,780	28,770	58·6	26·6	8·4	6·4
750,336	28·3	1,039,756	867,556	415,860	334,476	39·1	32·6	15·7	12·6
596,473	32·9	546,109	670,213	331,016	265,457	30·1	37·0	18·3	14·6
668,366	32·2	675,307	731,348	375,819	292,547	32·5	35·3	18·1	14·1
2,015,175	30·8	2,261,172	2,269,117	1,122,695	892,480	34·5	34·7	17·2	13·6
434,862	32·1	408,615	510,149	236,720	198,142	30·2	37·7	17·5	14·6
526,821	35·1	482,736	492,367	293,695	233,126	32·1	32·8	19·6	15·5
234,197	34·6	203,749	238,480	127,338	106,859	30·1	35·3	18·8	15·8
472,625	36·1	388,571	449,533	262,015	210,610	29·6	34·3	20·0	16·1
695,930	32·4	703,602	750,440	391,424	304,506	32·7	34·9	18·2	14·2
236,945	34·4	216,700	235,822	131,164	105,781	31·4	34·2	19·0	15·4
426,222	35·2	369,918	415,454	232,596	193,626	30·5	34·3	19·2	16·0
3,027,602	34·0	2,773,891	3,092,245	1,674,952	1,352,650	31·2	34·8	18·8	15·2
30,254	32·0	36,585	27,873	16,472	13,782	38·6	29·4	17·4	14·6
150,624	36·8	133,584	134,457	83,309	67,315	31·2	32·0	20·4	16·4
177,556	34·3	176,396	178,613	102,189	75,367	33·1	32·6	19·3	15·0
358,434	35·7	346,565	340,943	201,970	156,464	32·9	31·4	19·7	16·0
659,481	35·6	549,442	644,070	356,333	303,148	29·6	34·8	19·2	16·4
322,487	31·8	318,318	371,784	179,536	142,951	31·5	36·7	17·7	14·1
850,280	35·8	738,019	789,134	466,218	384,062	31·0	33·2	19·6	16·2
832,214	35·4	727,616	790,087	460,346	371,868	31·0	33·6	19·6	15·8
640,067	37·3	526,706	552,766	353,624	286,443	30·6	32·1	20·6	16·7
73,710	36·0	69,536	61,781	40,837	32,873	33·9	30·1	19·9	16·1
3,378,239	35·5	2,929,637	3,209,622	1,856,894	1,521,345	30·8	33·7	19·5	16·0

TABLE I.—*Area and Population of each District in Bengal,*

District.	Area in Square Miles.	Population.	Persons per Square Mile.	Total Males.	Total Females.	Per-centage of Females on Total Population.	Adults of both Sexes exceeding 12 Years of Age.
Chittagong Division—							
Chittagong	2,498	1,127,402	451	536,059	591,343	52·5	678,149
Noakhally	1,557	713,934	459	362,067	351,867	49·3	440,822
Tipperah	2,655	1,533,931	578	782,391	751,540	49·0	975,507
Chittagong Hill Tracts	6,882	69,607	10	40,883	28,724	41·3	45,782
Hill Tipperah..........	3,867	35,262	9	—	—	—	—
Total	17,459	3,480,136	199	1,721,400	1,723,474	50·0	2,140,260
Total for Bengal....	85,483	36,769,735	430	18,461,284	18,273,189	49·7	24,399,334
Behar.							
Patna Division—							
Patna	2,101	1,559,638	742	761,877	797,761	51·2	1,048,752
Gya	4,718	1,949,750	413	954,129	995,621	51·1	1,288,414
Shahabad	4,385	1,723,974	393	835,374	888,600	51·5	1,137,981
Tirhoot	6,343	4,384,706	691	2,191,764	2,192,942	50·0	2,873,091
Sarun	2,654	2,063,860	778	996,683	1,067,177	51·7	1,320,550
Chumparun	3,531	1,440,815	408	737,529	703,286	48·8	933,902
Total	23,732	13,122,743	553	6,477,356	6,645,387	50·6	8,602,690
Bhaugulpore Division–							
Monghyr...................	3,913	1,812,986	463	897,074	915,912	50·5	1,168,761
Bhaugulpore	4,327	1,826,290	422	917,183	909,107	49·8	1,171,387
Purneah	4,957	1,714,795	346	876,320	838,475	48·9	1,131,889
Sonthal Pergunnahs	5,488	1,259,287	229	629,716	629,571	50·0	746,700
Total	18,685	6,613,358	354	3,320,293	3,293,065	49·8	4,218,737
Total for Behar	42,417	19,736,101	465	9,797,649	9,938,452	50·4	12,821,427
Orissa.							
Orissa Division—							
Cuttack	3,178	1,494,784	470	725,330	769,454	51·5	978,733
Pooree	2,473	769,674	311	389,449	380,225	49·4	507,302
Balasore	2,066	770,232	373	379,077	391,155	50·8	502,640
Tributary Estates	16,184	1,283,309	79	646,205	637,104	49·6	798,479
Total for Orissa....	23,901	4,317,999	180	2,140,061	2,177,938	50·4	2,787,154
Chota Nagpore.							
Chota Nagpore Division							
Hazareebagh	7,021	771,875	110	397,045	374,830	48·6	491,289
Lohardugga	12,044	1,237,123	103	621,548	615,575	49·8	737,823
Singbhoom	4,503	415,023	92	207,926	207,097	49·9	249,149
Maunbhoom	4,914	995,570	203	500,936	494,634	49·7	625,697
Tributary Estates	15,419	405,980	26	205,925	200,055	49·3	242,026
Total for Chota Nagpore	43,901	3,825,571	87	1,933,380	1,892,191	49·5	2,345,984

vith Details of Sex and Age, and Percentages—Contd.

Children of both Sexes not exceeding 12 Years of Age.	Percentage of Children on Total Population.	Exceeding 12 Years of Age.		Not exceeding 12 Years of Age.		Percentage on Total Population of			
		Men.	Women.	Boys.	Girls.	Men.	Women.	Boys.	Girls.
449,253	39·8	287,648	390,501	248,411	200,842	25·5	34·7	22·0	17·8
273,112	38·3	209,942	230,880	152,125	120,987	29·4	32·3	21·3	17·0
558,424	36·4	482,644	492,863	299,747	258,677	31·5	32·1	19·5	16·9
23,825	34·2	27,994	17,788	12,889	10,936	40·2	25·6	18·5	15·7
—	—	—	—	—	—	—	—	—	—
1,304,614	37·9	1,008,228	1,132,032	713,172	591,442	29·3	32·8	20·7	17·2
12,335,139	33·6	11,643,071	12,756,263	6,818,213	5,516,926	31·7	34·7	18·6	15·0
510,886	32·8	491,394	557,358	270,483	240,403	31·5	35·7	17·4	15·4
661,336	33·9	609,553	678,861	344,576	316,760	31·3	34·8	17·7	16·2
585,993	34·0	522,657	615,324	312,717	273,276	30·3	35·7	18·2	15·8
1,511,615	34·5	1,377,765	1,495,326	813,999	697,616	31·4	34·1	18·6	15·9
743,310	36·0	606,897	713,653	389,786	353,524	29·4	34·6	18·9	17·1
506,913	35·2	466,874	467,028	270,655	236,258	32·4	32·4	18·8	16·4
4,520,053	34·4	4,075,140	4,527,550	2,402,216	2,117,837	31·1	34·5	18·3	16·1
644,225	35·5	553,983	614,778	343,091	301,134	30·6	33·9	18·9	16·6
654,903	35·9	565,131	606,256	352,052	302,851	30·9	33·2	19·3	16·6
582,906	34·0	548,569	583,320	327,751	255,155	32·0	34·0	19·1	14·9
512,587	40·7	359,965	386,735	269,751	242,836	28·6	30·7	21·4	19·3
2,394,621	36·2	2,027,648	2,191,089	1,292,645	1,101,976	30·7	33·1	19·5	16·7
6,914,674	35·0	6,102,788	6,718,639	3,694,861	3,219,813	30·9	34·1	18·7	16·3
516,051	34·5	453,357	525,376	271,973	244,078	30·3	35·2	18·2	16·3
262,372	34·1	250,820	256,482	138,629	123,743	32·6	33·3	18·0	16·1
267,592	34·8	232,933	269,707	146,144	121,448	30·2	35·0	19·0	15·8
484,830	37·8	389,185	409,294	257,020	227,810	30·3	31·9	20·0	17·8
1,530,845	35·5	1,326,295	1,460,859	813,766	717,079	30·7	33·8	18·9	16·6
280,586	36·4	233,750	257,539	163,295	117,291	30·2	33·4	21·2	15·2
499,300	40·4	347,612	390,211	273,936	225,364	28·1	31·5	22·2	18·2
165,874	40·0	119,309	129,840	88,617	77,257	28·7	31·3	21·4	18·6
369,873	37·1	295,433	330,264	205,503	164,370	29·7	33·2	20·6	16·5
163,954	40·4	120,742	121,284	85,183	78,771	29·7	29·9	21·0	19·4
1,479,587	38·6	1,116,846	1,229,138	816,534	663,053	29·2	32·2	21·3	17·3

TABLE I.—*Area and Population of each District in Bengal,*

District.	Area in Square Miles.	Population.	Persons per Square Mile.	Total Males.	Total Females.	Percentage of Females on Total Population.	Adults of both Sexes exceeding 12 Years of Age.
Assam.							
Assam Division—							
Goalpara	4,433	444,761	100	229,374	215,387	48·4	291,778
Kamroop	3,631	561,681	155	292,688	268,993	47·9	358,552
Durrung	3,413	236,009	69	122,837	113,172	48·0	158,030
Nowgong	3,648	256,390	70	133,107	123,283	48·1	161,878
Seebsaugor	2,413	296,589	123	154,940	141,649	47·8	189,963
Luckimpore	3,145	121,267	39	64,692	56,575	46·6	78,322
Naga Hills	4,900	68,918	—	—	—	—	—
Khasia and Jyntcah Hills	6,157	141,838	—	68,593	73,245	51·6	84,280
Garo Hills	3,390	80,000	—	—	—	—	—
Total for Assam	35,130	2,207,453	63	1,066,231	992,304	48·2	1,322,803
Total country included in census	230,832	66,856,859	290	33,398,605	33,274,074	49·9	43,676,702
Add for waste, &c.	17,399	—	—	—	—	—	—
Total territory under Lieutenant-Governor of Bengal	248,231	66,856,859	269	—	—	—	—

TABLE II.—*Population of each Province, classified according to Nationality or Race.*

Race or Nationality.	Bengal.	Behar.	Orissa.	Chota Nagpore.	Assam.	Total.
Europeans and other non-Asiatics	17,135	3,305	239	1,517	412	22,608
Eurasians	18,419	1,477	271	53	59	20,279
Non-Indian Asiatics	99,590	2,363	6	3	2,029	103,991
Aborigines, pure	387,157	693,648	367,308	1,290,700	651,765	3,390,578
Semi-Hinduized Aborigines	5,110,989	2,993,483	572,595	797,176	614,248	10,088,491
Hindus	12,425,750	13,299,908	3,231,799	1,524,277	672,522	31,154,256
Mahommedans	17,608,730	2,636,053	74,466	169,006	176,195	20,664,450
Native Christians	27,705	3,245	3,213	14,226	1,034	49,423
Others	415,753	102,619	68,102	28,613	9,189	624,276
Total	36,111,228	19,736,101	4,317,999	3,825,571	2,127,453	66,118,352

Note.—The grand total in this table falls short of that in the preceding table by 738,507. This number represents the population of Cooch Behar, the Western Dooars (90,680), Hill Tipperah, and the Garo Hills, where no classification of the people according to race wa
attempted.

with Details of Sex and Age, and Percentages—Contd.

Children of both Sexes not exceeding 12 Years of Age.	Percentage of Children on Total Population.	Exceeding 12 Years of Age.		Not exceeding 12 Years of Age.		Percentage on Total Population of			
		Men.	Women.	Boys.	Girls.	Men.	Women.	Boys.	Girls.
152,983	34·4	145,919	145,859	83,455	69,528	32·8	32·8	18·8	15·6
203,129	36·2	185,461	173,091	107,227	95,902	33·0	30·8	19·1	17·1
77,979	33·1	82,770	75,260	40,067	37,912	35·0	31·9	17·0	16·1
94,512	36·9	83,460	78,418	49,647	44,865	32·6	30·5	19·4	17·5
106,626	36·0	99,718	90,245	55,222	51,404	33·6	30·4	18·6	17·4
42,945	35·4	42,023	36,299	22,669	20,276	34·7	29·9	18·7	16·7
—	—	—	—	—	—	—	—	—	—
57,558	40·6	39,882	44,298	28,611	28,947	28·2	31·2	20·2	20·4
—	—	—	—	—	—	—	—	—	—
735,732	35·7	679,333	643,470	386,898	348,834	33·0	31·3	18·8	16·9
22,995,977	34·5	20,868,333	22,808,369	12,530,272	10,465,705	31·3	34·2	18·8	15·7
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

TABLE III.—*Occupations of the Males over 12 Years of Age in each Province.*

Occupation.	Bengal.	Behar.	Orissa.	Chota Nagpore.	Assam.	Total.	Percentage on Total Adult Males.
ublic service	135,368	55,362	28,022	8,632	3,990	231,374	·1·1
rofessions	272,455	61,302	47,466	7,385	4,152	392,760	1·9
rivate service	631,139	344,553	63,318	42,592	25,341	1,106,943	5·3
griculture...............	6,598,322	3,586,031	689,743	711,161	522,423	12,107,680	58·0
ommerce and trade	861,236	253,379	50,086	32,037	20,012	1,216,750	5·8
anufactures, including artisans	1,421,585	590,025	205,349	88,415	16,594	2,321,968	11·1
abourers not specified	1,180,177	1,041,551	201,203	213,093	23,677	2,659,701	12·8
iscellaneous	542,789	170,585	41,108	13,531	63,144	831,157	4·0
Total	11,643,071	6,102,788	1,326,295	1,116,846	679,333	20,868,333	100·0

Note.—In Cooch Behar, the Bhootan Dooars, and the Khasia Hills, no account was taken of he occupations of the people; the adult males in those tracts therefore (237,453) are included in he *miscellaneous* class.

Discussion *on* Mr. Beverley's Paper.

The Chairman (Dr. Farr) said that the Society had always taken the deepest interest in India, which was a most important part of Her Majesty's dominions. There was never a period at which our Indian dominions were regarded with more interest than at the present moment. He had to assist in the census of the United Kingdom, and at that time it was suggested that a census should be taken of the whole of the empire. It was found that there were 235,000,000 of people under the dominion of the Queen, living on 8,000,000 square miles of territory. There was a population, he believed, of 196,000,000 in India, and one of the most important questions now occupying public attention was how to feed a large proportion of that population exposed to one of the most dreadful forms of death—starvation. Mr. Beverley's paper could not fail to be of the greatest interest at the present moment, as, notwithstanding all the articles in the newspapers in relation to the famine, the subject, he did not think, was at all understood, and he hoped that the discussion which would follow would throw a new light upon it.

Mr. Beverley said, that he hoped to have had a map which would have shown the extent of the famine at the present time, but, unfortunately, it had not arrived. The tract now affected by the famine was the whole of Behar, part of the North-West Provinces, and the upper part of Bengal, extending to the borders of the Brahmapootra; it was also thought that there was some danger to the Burdwan division. One of the worst tracts of the famine was to the north of the Ganges in Behar, and the part worst of all was that bordering on Nepaul and the sub-Himalayan ranges.

The Chairman asked if Mr. Beverley could tell the usual fall of rain in that district, and the fall during the last year, so as to throw light on the cause of the famine?

Mr. Beverley said, that the average annual rainfall was about 60 inches. Last year not more than 2 inches fell during the latter part of the season.

In reply to a question, Mr. Beverley stated that there were no statistics as to the agricultural area of Bengal.

General Strachey, R.E., F.R.S., said, that as to the general result of the census of Bengal, he thought it was impossible that such an inquiry could have been better conducted than it had been by Mr. Beverley. From the extremely modest way in which the paper was written, probably some of the gentlemen who had heard it read would not altogether appreciate the fact that the census of Bengal was, absolutely and wholly, the work of Mr. Beverley himself. The instigating force had been Lord Mayo's Government. That there should be no record whatever, up to 1872, of the population of the province of British India which had been longest in our possession was, some people would consider, not altogether a reputable circumstance. At the commencement of Mr. Beverley's paper, he had not altogether stated what perhaps did occur in reference to the undertaking of that census exactly in the way in which an outsider might have done. He did not say there had been an unfair resistance, but certainly there had been an absolute resistance made to the making of that census. It was said it would be impossible, and all sorts of reasons were given why it would be impossible; but Mr. Beverley had shown that it was not so. Considering the extreme difficulties under which a census was necessarily made for the first time in an Indian province, and the enormous variety of population in a country like Bengal, he thought it was extremely creditable to Mr. Beverley and Sir George Campbell's

Government that such a census should have been accomplished. During the whole of the time he (General Strachey) had been employed in the Indian Government, he had taken a great interest in these matters, and had done his utmost to stimulate investigations of that sort, and, amongst others, a similar sort of inquiry, which, up to the present time, had totally failed—an inquiry into the agricultural statistics of the country, which, under present circumstances, in Bengal would have been of inestimable value. There was absolutely nothing in the shape of agricultural statistics of British India. The only way of governing a country well was to acquire a knowledge of the facts under which the population exists, and under which the whole of the operations that conduce to the existence and well-being of the population, are carried on. Without such knowledge, good government was absolutely impossible. Anything that the Society could do to further the acquisition of statistical information regarding British India, would be of the very greatest benefit to the inhabitants of that great country.

Dr. MOUAT said, that having passed a considerable number of years in Bengal, he desired to say a few words regarding the facts presented to the Society by Mr. Beverley. When he first heard the results of the census, he disbelieved in their accuracy, and thought that they could not possibly be correct. He had frequently traversed the country from one end to the other with his eyes open, he had kept careful notes of his observations by the way, he had studied all previous records on the subject, and was familiar with the calculations of Buchanan Hamilton, of Adams in his Education Reports, as well as the excellent records of the Revenue Survey Department, so far as they were in print, and he believed that he possessed as much knowledge of this great province as any man. As the outcome of this knowledge, although he regarded the former estimates of the population to be too low, he was thoroughly disposed to question the existence of the 67 millions of Mr. Beverley's census.

Since that time he had obtained the "Census Report of 1872," and had studied it carefully, section by section. Testing its statements by his own personal knowledge of the country and the people, he had arrived at the conclusion that, although a census conducted in the manner of that of Bengal must of necessity be imperfect—an imperfection which its author had candidly admitted as to many matters of detail—where it erred, it probably erred rather on the side of under than of overstatement. Considering the habits and strong prejudices of nearly all the nationalities found in Bengal, there were a multitude of reasons against an exaggeration of their numbers, and none for the opposite supposition. He believed, therefore, that the results obtained by Mr. Beverley, might fairly be accepted as an approximation to the truth, as near as could be obtained in existing circumstances.

As to the reasons assigned for the simplicity of the forms adopted, they had his entire concurrence. There were one or two points, however, in which he was somewhat at issue with Mr. Beverley. He (Dr. Mouat) thought that the age of 12 as the limit between childhood and the adult period, if based on physiological grounds—as it probably was—was too low; for among the many fallacies current regarding India was that which exaggerated the premature development of the frame, and the consequently early advent of puberty. This question cropped up incidentally, when the late Mr. Drinkwater Bethune, one of the founders of the Statistical Society, was engaged on the Indian Penal Code. A considerable amount of information was collected for him by Pundit Mudusuden Gupta, the first Hindu Professor of Anatomy in Calcutta, the result of which was, that although the advent of puberty was undoubtedly somewhat accelerated in both males and females, it was not so to the extent generally believed—and that extremely early maternity was more an exception to the general rule than was generally supposed. Hence it seemed to him to be incorrect to class all males and females above 12 years of age as adults. He thought it would have been better, in the absence of specific details of age for every year of early life, to have fixed the standard at a somewhat higher figure, probably 15 years for boys and 14 for girls. The points ought, at all events, to be carefully considered in any future numbering of the people.

Dr. Mouat fully endorsed all that Mr. Beverley had said about the difficulty of taking a census at all, from the absurd rumours to which any attempts of the kind invariably gave rise. The prospect of increased and novel taxation was not the least mischievous of such rumours. They not only prevailed in distant parts of the country among savage and semi-civilised tribes, but even in Calcutta itself, where the means of obtaining accurate information were within the reach of all classes. The fact of so good a census having been obtained in the face of such difficulties and disadvantages, was creditable to all concerned, and most so to the author of the modest and sensible report, in which his inexpensive and thorough work had been recorded.

Dr. Mouat had heard with particular pleasure the important services rendered by the press, which he had organised in the Alipore gaol some time since, from which several millions of forms had issued, and, without which the cost and difficulty of the census would have been much increased.

He agreed in the main with most of Mr. Beverley's views respecting the nationalities and races of Bengal. He thought that the great fecundity of the aboriginal people was partially due to their marriage at a later period of life, to their more simple manners and better morals, and to their more active life and more varied dietary. He referred more particularly to the Kols and Sonthals, of whom he had seen a good deal at different times.

He was not disposed altogether to concur in the statement that Hinduism was a proselytising religion. Pundits might manufacture sham Rajpoots, but they and all others who fell into the rear of the column were, in reality, without the pale of Hinduism, and nothing could bring them within it. The distinctions between Hindus and Mahommedans in Eastern Bengal was so slight in manners, customs, and religious ceremonies, that the only distinction between them was frequently one of name, for many of both religions joined in the same festivals and with equal fervour.

On the whole he considered the paper one of the most interesting and valuable which had ever been read in that room, regarding the portion of British India to which it related. It would be difficult to over-estimate the importance of having accurate figures in dealing with the great calamity now pending—the Bengal Famine. Estimated by the old figures, millions might have perished from absolute ignorance of their mere existence, and consequent failure to provide food where it was required. As it is, should the calamity assume the proportions now considered probable, a great loss of life *must* result in spite of all the care taken to prevent it.

He had not come prepared to discuss the large question of the famine, nor had he been able to reconcile the conflicting statements made regarding it, beyond the conviction that we were in presence of a great and afflicting calamity.

He would limit his remarks to two points only, the prohibition of the exportation of rice from the port of Calcutta, and the importation of Burmese rice to fill the void.

He thought it a matter of regret that the question had been determined solely from its economic side, because the rules of political economy in their relation to supply and demand were not so firmly established as to be accepted by all men in ordinary times and circumstances; and, it was by no means established, that they were fitted to control and regulate such very exceptional circumstances as the food supply of Bengal at the present time. Moreover, the measure seemed to him to have failed in producing the desired result.

Whether the exodus of the food of the country could have been prevented by any measures short of those adopted, he was not prepared to say; but it ought, he thought, to have been prevented at all hazards—from a point of view which did not appear to him to have been sufficiently considered, viz., the great probability that a new and unaccustomed variety of rice, requiring a different mode of preparation for its assimilation with safety, will be attended with disastrous effects on the feeble frames and lowered vitality of the famine-stricken.

Dr. Mouat had had unhappy experience of the dangers of unaccustomed varieties of food in less difficult circumstances than those of famine, and he confessed to looking with some apprehension on the possibility of the famine-stricken starving in the midst of plenty.

He would have preferred the distribution of the food—for this was one of the chief difficulties of the famine—through the natural channels of supply of the country, rather than from relief centres. By this means alone could it have reached the remote corners, to which it is not now likely to find its way, and where death will be faced with the quiet, uncomplaining, passive stoicism which is so marked a feature of the Indian character.

He could not help thinking that the whole produce of the grain-producing districts might have been bought up by the Government, without such disturbance of trade as was feared. It would doubtless have cost much money, but when lives are in one scale and money in the other, there should be no hesitation as to which should kick the beam.

He had no desire to criticise in an unfriendly or ungenerous spirit the actions of those whose whole energies as men, administrators and Christians were directed to pulling the people committed to their charge through this difficulty, with the least possible loss of life. It was more easy to criticise at a distance than to act on the spot, and to those who have to bear the heat and burden of the day, our strongest sympathy and support should be given in the execution of a mission of mercy, which needs all the strength and manhood of Englishmen to carry out without fear, and to effect without reproach.

Not the least service rendered to the country in this great crisis has been the census of Bengal, and, if any large saving of life results from the measures adopted, much of the credit will be due to Mr. Beverley and his coadjutors.

Sir GEORGE BALFOUR, M.P., said, he could well understand the difficulties which Mr. Beverley had had to encounter in bringing his census to a close. Sir George Campbell had worthily borne testimony to Mr. Beverley's work, and he knew of no testimony to any man's work that was more worth having. He hoped that a copy of the Bengal Administration Report, in which Sir G. Campbell's opinion was recorded would be procured for the library. He was exceedingly anxious to see more accurate statistics given with regard to India. He had prepared for another place (the House of Commons) a statement of the previous census. Within the last ten years the population of Bengal had been varied from 37,000,000 to 66,000,000. The whole population of India was now given at 40,000,000 or 50,000,000 more than it had been estimated at, in former official statistics. He believed that cultivation was very defective in Bengal, but in Madras, where statistics had been at the command of Government for a series of years, barely 140 acres per square mile were stated to be under cultivation. But this information could not be very reliable, when it was considered that there were in that presidency 31,000 of people to every 141 square miles. Sir George Campbell had reckoned upon half an acre of food cultivation in Bengal for every inhabitant. Last century, according to the report by Mr. Edward Colebrooke, it was calculated that one acre was set apart. Looking at the figures, there were only 27,000,000 of acres under cultivation in Bengal and Behar. Last century, there were 32,000,000 of acres set apart for food, independently of other supplies; so that instead of cultivation increasing with the population, it had fallen off. It was not surprising, therefore, to find the food in Bengal scarce. Another difficulty was the absence of reliable information as to the quantity of rice produced in Bengal. The Society would be doing a great service if they could induce the Government of India to endeavour to find out the agricultural statistics of the whole of India. Looking back one hundred years ago, no one could fail to have seen that the great famine of 1770, came on exactly in the same manner as that of 1873-74. The cessation of rains took place in 1769, exactly the same way as in 1873, and the same results then followed as it was feared would follow now. At least 3,000,000 inhabitants were supposed to have then suffered, and he very much feared that Mr. Beverley's calculations would fall far below the terrible loss that would be sustained. He believed there were few in the room that had ever seen a famine. He had seen one; but he never wished to see another. He hoped that the discussion would have some practical effect in inducing the Government of India to use all possible measures for the prevention of such calamities.

Mr. C. Walford asked if Mr. Beverley had any hopes of a system of registration of births, deaths and marriages being introduced into India?

Mr. Trelawney Saunders thought that the necessity of issuing agricultural statistics in India ought to be urged upon the Government. The importance of that would be the more strongly felt, when it was known that Bengal and the North-West Provinces were the sole exceptions among the other districts under British administration in India, that did not return agricultural statistics in some form or another. It was exceedingly remarkable that so important a Government as the Lieutenant-Governorship of the Lower Provinces of Bengal should be one of those provinces of the British administration that was lacking in that respect. He believed the explanation was to be found in the fact that it was due to the permanent settlement.

Mr. J. H. Elliott said, that as he apprehended there was no part of the world over-fed, and that it had no food to spare, he would ask where was the food to come from, to meet the requirements of the famine?

General Strachey said, that he did not come to the meeting with the expectation that the famine in Bengal was to be discussed, but he might say, in answer to Mr. Elliott, that he had seen a telegram which had been sent by the Governor-General of India, in which he stated it as his opinion that there was ample food available in India to meet every possible requirement; and if there was any one who had the means of information on the subject, it would be Lord Northbrook.

The Chairman (Dr. Farr) said, he could not but commend the zeal that had been shown by their Indian brethren in taking the census. The population returns had a very important bearing on the question of famine. The English census had shown that in purely agricultural counties, the agricultural system, as at present existing, supported about 150 persons to every square mile of territory, and in earlier times, as for instance, in the time of Queen Elizabeth, there were about 83 persons to the square mile. Now there were 390, including all the manufacturing and mining portions of the population, who produced articles which they exchanged for food obtained from America, Russia, and other parts of Europe. So that considering that Bengal had an almost entirely agricultural population subsisting on a remarkably fertile soil, one would expect that more food would be produced, but the population had been bred up to the very highest point, and there were 400 and 500 and 600 people to a square mile of territory. No doubt the produce could be increased by improved modes of cultivation; but great improvements could also be effected in the roads and means of transport, which would equalise the distribution of food. He believed that what Lord Northbrook had said was incontestable—that there was plenty of food in India. The failure was quite partial, the only thing wanted was better means of distribution by roads and railways. Bengal was pretty much in the same situation as Ireland was before the famine. There were 8½ millions of a population in Ireland, who had no claim on the property of the country. There was no effective poor law, and the population increased at a very rapid rate. The landlords living on their rents had no interest in the lives of the people. Bengal was much in the same position now. What was wanted then was some system by which the owners of property in Bengal, should have an interest in the lives of the people. The greatest danger to be encountered now-a-days was not an external or an invading enemy, but one far worse—death by starvation. Of course, if the population increased to such a degree that there were 500 or 600 to the square mile, which could only sustain in comfort 400, there would come a period of failure, and death from starvation must ensue. Unfortunately the people of India thought it their duty to marry at the early age of between 15 and 20. At home, there is scarcely a girl married at that age, or if they are, it is with great danger to themselves and injury to the population. It was a matter of religion in India, that girls and young men too, should be married, not of their own will, but by the will of their parents, and the consequence is the extraordinary rate of the increase of the population. After the period of famine was over, it would be well worth considering whether the Government of India could not introduce some plan akin to our poor law system, by which the people of India would have a claim upon the property of the country. The intelligent classes would then find their way to discourage the notion that it was a duty to marry so early, and there would be eventually a better population. Dr. Farr concluded by moving a vote of thanks to Mr. Beverley for his excellent paper.

Colonel MAKINS, M.P., in seconding the motion, said that he had known Mr. Beverley all his life. They were undergraduates at Cambridge together at the same college. He was glad that Mr. Beverley's energies had not been crystallised by a college fellowship, but had been devoted to the service of his country. He was glad to have heard the paper and the discussion, because it would enable him the more readily to take part in the debates upon Indian questions. It would be his duty—and it should also be the duty of others who had the welfare of India at heart—to press upon the Government the importance of getting agricultural and other statistics, because, with such information, they would be enabled to deal successfully with such crises as had arisen within the last two months.

Mr. BEVERLEY returned thanks. Replying to the several speakers, he said he would be acting unfairly if he did not state that he had been ably seconded in his efforts in making the census by all the district officers in Bengal, and unless those efforts had been more than seconded by Sir George Campbell himself, he was afraid the census would not have been such a success. There was no one who took a deeper interest in agricultural statistics than Sir George Campbell, who had endeavoured to collect all possible information on this point, although, he was sorry to say, the information had as yet proved very worthless. A staff of deputy-collectors have lately been established for the purpose of collecting information, but he was afraid that unless a regular department was organised, and each district taken separately and worked out thoroughly, there could be no statistics obtained that would be worth the expense.

In regard to the registration of births and deaths outside the limits of the presidency towns of Calcutta, Madras and Bombay, he believed that no system of registration of births existed in India at all. There was at the present time a rough system of registration of deaths through the instrumentality of the rural police. Although the returns were as yet worthless, the minds of the people were getting accustomed to the idea, and in the course of time it was hoped that a regular system would be established. There were peculiar difficulties connected with the registration of marriages, which prevented its being entered into at present, and it was also a subject which touched upon the religion of the people. He thought that Dr. Mouat was under a slight misapprehension in his remarks regarding the age of children as distinguished from adults. That age was not, as he seemed to think, the period of puberty; it was simply the age of 12 years. There was no mention of the age of puberty in the returns. Parents were asked simply whether their children were 12 or below that age, and he thought that the returns were not very incorrect on the subject. In the North-West Provinces, where a census was taken in 1865, the age of every man, woman and child was recorded, and the proportion of children under 12 years of age was very nearly what it was in Bengal. There was no question of puberty; it was simply one of age. The central provinces presented a stronger case. At the previous census the limit of age was 14, and the children numbered 40 per cent. of the population; and when the limit was reduced to 12, the percentage fell 2 per cent. That might not be the strict statistical proportion, but it showed that the people did not treat the question merely as one of puberty.

The motion was unanimously carried.

MISCELLANEA.

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I.—*Monsieur Quetelet.*

Adolphe Quetelet was born at Ghent on the 22nd of February, 1796, and died at Brussels on the 17th of the same month, in the present year, 1874. At an age when most young men are in their pupillage, he was Professor of Mathematics in his native town, whence his success and distinction as a teacher caused his transfer in 1819, to the Athenæum of Brussels, in a similar capacity. In 1820 he found admission to the Brussels Academy of Sciences and Letters, which, chiefly by his endeavours, expanded into the Royal Academy of Belgium. Of this he became perpetual secretary, an office which he retained to the time of his death. He was associated with the work of this important body for fifty-four years, during forty of which he was its guiding spirit. He so ruled his little republic as to secure the regard, esteem, and veneration of all within its walls, and to found without, in the wide sphere of science beyond, one of the most solid, enduring, and brilliant reputations of our time.

He founded and directed the work of the Royal Observatory at Brussels from 1832, the date of its opening, to that of his passing to his rest within its walls. He was intimately associated, during an exceptionally extended life of intellectual activity, with mathematical and physical inquiries of the highest order: was the father and founder of physical sociology in the form which it has now taken; was the friend and correspondent of many scientific men of eminence, and was an honoured member of nearly every scientific body in the world, which has any pretensions to authority in the conduct of scientific research.

His best known works are his theory of probabilities, social physics, and anthropometry. The two former have appeared in English translations, and shortly before his death he had sanctioned the reproduction in the same language of the latter, which he promised to enrich with original notes to bring them up to date. The project has fallen through from no fault of M. Quetelet, who, to within a few days of his death, in personal conference and correspondence exhibited the great qualities of intellect, and high, spotless honour, which had distinguished him throughout life.

The mere enumeration of his contributions to pure and mixed mathematics would occupy a very large space, and from their intrinsic merit, patient and conscientious research, and earnest regard for truth, would alone have secured him a foremost place among the distinguished scientific men of the present century.

It would be difficult to portray a character of greater purity, simplicity, and excellence in private life, qualities which secured him friendships in every country, as warm and sincere as they were lasting. Few men in their public career have earned a fairer title to a niche in the Temple of Fame, for assuredly none have laboured more earnestly and successfully in directing human thought into channels calculated to promote the welfare of society, in its most extended sense.

This brief tribute to the memory of Adolphe Quetelet is penned at the hour of going to press, to notify to the Fellows of the Statistical Society the loss of one of its most distinguished members, and with no pretensions to such an analysis of his character and writings, as will doubtless find a fitting place in a future record of the Society.

His last public appearance at the International Statistical Congress held in the autumn of 1872, at St. Petersburg, will not be readily forgotten by the delegates of the Statistical Society, who witnessed the enthusiastic acclamations with which M. Quetelet was greeted by the representatives of statistical science, collected from every quarter of the globe, in the capital of the great Northern Empire.

In the eloquent words of one who assisted at his obsequies—"as a man of science he was modest and full of kindness; convinced, but respecting the convictions of others when combating them; always calm, avoiding everything calculated to wound those from whom he differed. As a man of science he was admired; as a political character, he was respected; in private life, he was beloved."

II.—*The Permanent Commission of the International Statistical Congress.*

At the Congress of St. Petersburg, which met in August, 1872, it was resolved to establish a permanent commission for purposes which were fully discussed at the time, and which were referred to in the report of Mr. Samuel Brown on the Congress.*

The resolutions adopted were:—

1. A Permanent Commission of the International Statistical Congress is constituted.
2. This Commission is composed of members charged to prepare the plan of an international system of statistics. The countries which are not included in the distribution of international statistical work, have the right of nominating delegates to the Permanent Commission.
3. The president of the Congress is the president of the Commission until the next succeeding Congress, and is armed with full authority to direct and organise its proceedings.
4. The president appoints his secretary.
5. The Permanent Commission meets at least once in the interval between two successive sessions of the Congress.

The work of the Commission is—

(*a.*) To obtain information respecting the practical effect given to the decisions and suggestions of the Congress in different countries, and the difficulties experienced in the realisation of those decisions and suggestions, as well as to examine if these difficulties require a revision of the decisions adopted.

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* *Journal of the Statistical Society*, vol. xxxv, p. 438.

(*b*.) To follow up the assimilation of statistical publications in different countries, so far as is necessary to the formation of international statistics.

(*c*.) To call the attention of the organising committee to the questions to be considered in the next ensuing session, and to assist in the preparation of the programme of the said session.

(*d*.) To conduct international inquiries with a view to present to the organising committee of the General Congress, reports on the state, in all countries, of the branches of statistics relating to the questions proposed: every report presented to the General Congress on any given question, being preceded by an international inquiry.

(*e*.) To elaborate international collective works such as were undertaken at the Congress held at The Hague, to resolve the questions relating to these works, and to prepare the programme.

(*f*.) To revise and determine the reports of the decisions of the Congress.

The Permanent Commission met at Vienna during the Exhibition, held several sittings, and discussed all the questions submitted, in full session, without subdivision into sections. The reporters named by the committee were, Dr. Engel for the statistics of industry; M. de Baumhauer, assisted by M. Yvernes for judicial statistics; and for census returns, M. Séménow, assisted by MM. Ficker, Berg, Becker, Keleti, and Mayr.

The question of the determination of the reports of the decisions of the Congress was the subject of a prolonged debate, as to whether the Commission have power to change or modify the resolutions of the Congress, or merely to formulate and harmonise them in the exact sense intended by the Congress. The resolution ultimately arrived at, was to the effect, that the "Permanent Commission takes as the point of departure [basis] of their work the resolutions of the Congress, in seeking the means of their application, and in reserving to itself the right of formulating independent decisions."

This decision is a compromise, evidently intended to reconcile the different views entertained as to the source of origin of the power of the Commission. Dr. Engel and those who supported him considering that the Commission derived its power [mandat] from the Governments, and not from the Congress; the other party, with Dr. Ficker, contending that as the Commission was a direct outcome of the Congress, its power was limited, it being, in fact, a committee of the Congress. As the Commission consists of official delegates, who are supposed to represent their respective Governments, the views of Dr. Engel had considerable support.

England, Belgium, Spain, and Portugal were not represented at the Commission, of which M. Séménow was the first, and Dr. A. Ficker of Vienna the second presidents.

The first point decided by the Commission was the designation of the place of meeting of the next or Ninth Congress, which it was determined to recommend to be held at Buda-Pesth, the capital of Hungary, in 1875.

The work delegated to the Permanent Commission by the St. Petersburg Congress, viz., the graphic and geographic methods; the statistics of mines and mining industry; the statistics of commerce, with special reference to a list of 103 articles, which were to form the minimum of information in relation to trade statistics; and the comparative nomenclature of grave crimes, were all considered, and resolutions regarding them were passed.

The classification of industries, and several questions connected with comparative international statistics, were also discussed with care and ability.

It is not deemed necessary, at the present time, to reproduce in detail the deliberations of the Permanent Commission, the more especially as the results ultimately arrived at, will doubtless be recorded in the proceedings of the next Congress, of which an analysis will, as heretofore, be prepared for this *Journal.*

A perusal of their *Compte-rendu* shows that much good work was done, and that the Commission will form an important connecting link between the successive general assemblies of the Congress, fully realising the important ends contemplated in the formation of the Permanent Commission.

III.—*Statistics of a portion of the area of the Famine in Bengal.*

THE difficulty, amounting to impossibility, of obtaining accurate information as to the whole area over which failure of crops and deficiency of food prevails, has rendered it impracticable, at present, to collect statistics of the leading facts of interest connected with this great calamity as a whole.

The scarcity is said, according to the latest accounts, to have passed the limits of the Lower Provinces considerably to the north-west, to have extended to the Hill Tracts bordering on Behar, to be felt at the southern extremity of the Madras Presidency, and to be likely to affect distant places beyond the seas, which depended for the staple of their food-supply upon the Indian Province which is the chief seat of this serious national misfortune.

It may not be without interest at this time, when public attention is so strongly directed to the sufferings of a great number of subjects of the British Crown, to gather together a few facts regarding such portions of the famine area as are known to be in distress, and of which authentic data are at hand in official documents not generally accessible. The chief, indeed the only really reliable, authority is the Census Report of Bengal for 1872, regarding which a very valuable and interesting paper by Mr. H. Beverley, the Inspector-General of Registration in that province, is contained in the present number of this *Journal.*

The entire territory which was included in the Lieutenant-Governorship of Bengal at the time the census was taken, consisted of five divisions, with an estimated area of 242,231 square miles, inhabited by 66,856,859 people. From this enormous charge, Assam and Cachar, with an aggregate area of 44,758 square miles, and a population of 2,412,480, being in the proportion of 3·68 of the whole population, have since been separated and placed under the rule of a Chief Commissioner, subject to the direct control of the Government of India.

At the present time of writing, the portions of Bengal in which pressure is actually felt, are, the province of Behar, consisting of the Patna and Bhaugulpore divisions, and the immediately adjoining division of Rajshahye. Eleven other districts represented by the Sonthal Pergunnahs, which are a portion of Bhaugulpore, the Burdwan and Chota Nagpore divisions, and one district of the Presidency division, are reported to be less seriously threatened. The combined area and population of the actual famine tract in the Patna, Bhaugulpore and Rajshahye divisions, cover 52,657 square miles, and are peopled by 26,158,953 souls. The less threatened districts are 65,529 square miles in extent, and contain a population of 14,184,610. The whole area and population threatened with deficiency of food in the Lower Provinces, consequently amount to 118,186 square miles, and 40,343,563 of people.

Over this wide area and among this large population, the amount of suffering will vary in proportions quite impossible at present to gauge or ascertain, with the faintest approximation to accuracy.

When the famine is happily at an end, and the worst is known, the figures and facts necessary for present information and future guidance will, doubtless, be collected by the Indian authorities at home and abroad, with the extreme care and minuteness demanded in the interests of humanity, and for the legislative and other measures necessary for the future prevention of such calamities, so far as human power is capable of dealing with them.

The few figures now collected are merely intended to show some of the leading points of interest, in a financial and social sense, and in a form more generally accessible than the official reports connected with India, from which they are gleaned.

Subjoined, taken from the *Times* of the 17th February, 1874, are the statistics of the area, population, and revenue of the districts in Bengal in which the pressure of famine was first and most severely felt; in which loans were offered to municipalities and advances to landowners; in which relief committees were formed, and relief works sanctioned; and in which all local and general burthens were dealt with in a large and liberal spirit, by the suspension of ordinary rules and procedure, and the issue of special regulations giving large and judicious powers to deal with difficulties as they arose, to all local authorities.

Commissionerships.	Districts.	Sub-Divisions.	Square Miles.	Population.
Patna	Patna	4	2,101	1,559,638
	Gya	4	4,718	1,949,750
	Shahabad	4	4,385	1,723,974
	Tirhoot	6	6,343	4,384,706
	Sarun	2	2,654	2,063,860
	Chumparun	2	3,531	1,440,815
Bhaugulpore	Monghyr	3	3,913	1,812,986
	Bhaugulpore	4	4,327	1,826,290
	Purneah	3	4,957	1,714,795
Rajshahye	Moorshedabad	4	2,578	1,353,626
	Dinagepore	1	4,126	1,501,924
	Maldah	1	1,813	676,426
	Rajshahye	2	2,234	1,310,729
	Rungpore	2	3,476	2,149,972
	Bogra	1	1,501	689,467
Total	15	43	52,657	26,158,958

Chief Towns with Population.		Number of Villages.	Civil Judges.	Magistrates.	Number of Police.	Revenue.	
Head Quarters Town.	Population.					Land.	Gross.
						Rs.	Rs.
Patna	158,900	3,412	5	7	1,488	14,53,830	20,66,623
Gya	66,843	6,530	5	7	922	13,84,888	18,57,830
Arrah	39,386	5,110	6	9	772	17,39,960	21,36,126
Mozufferpore	38,223	7,337	7	15	949	17,70,506	23,73,253
Chupra	46,287	4,350	5	7	584	12,29,649	15,99,253
Moteeharee........	8,266	2,299	1	7	399	5,15,206	6,81,529
Monghyr...........	59,698	5,457	4	8	511	8,85,447	13,54,011
Bhaugulpore	69,678	2,739	5	8	595	4,66,421	8,76,301
Purneah	16,057	4,179	6	9	636	12,30,354	18,91,524
Berhampore	27,110	3,753	7	9	995	13,51,684	17,08,471
Dinagepore	13,042	7,108	10	4	450	16,70,489	18,80,698
English Bazaar	12,859	2,100	1	4	312	3,95,058	5,61,460
Rampore Beauleah....	22,291	4,228	6	8	472	6,90,487	8,74,303
Rungpore	14,845	4,206	8	6	439	9,74,647	13,67,793
Bogra	5,872	2,666	1	4	343	4,43,907	5,64,129
Total	599,357	62,474	77	112	9,896	1,63,02,420 £1,630,243	2,14,93,304 £2,149,330

In the subjoined table, and the explanatory text following it, are shown the proportions of Hindus, Mahommedans, and other sects contained in the districts referred to, giving the proportions of each. These are important factors in the consideration of the failure of food, as all are not vegetable feeders to the same extent, or in the same proportions: a certain proportion of animal food entering into the dietary of all Mahommedans and other sects who can afford it, and with whom there is no religious objection to its use.

Commissionerships.	Districts.	Hindus.	Mahommedans.
Patna	Patna	1,363,291	192,988
	Gya	1,729,899	219,332
	Shahabad	1,590,643	132,671
	Tirhoot	3,854,991	528,605
	Sarun	1,822,048	241,590
	Chumparun	1,240,264	199,237
Bhaugulpore	Monghyr	1,613,546	182,269
	Bhaugulpore............	1,639,949	169,426
	Purneah	1,022,009	690,149
Rajshahye	Moorshedabad	733,056	603,564
	Dinagepore	702,235	793,215
	Maldah	356,298	310,890
	Rajshahye	286,870	1,017,979
	Rungpore	857,298	1,291,465
	Bogra	130,644	556,620
Total		18,943,041	7,130,000

In the district of *Patna* there were, besides, 2,700 Christians and 659 inhabitants not classified. In the *Gya* district there were 203 Christians and 316 unclassified persons. In the remaining districts, there were in *Shahabad* 461 Christians and 199 unclassified; in *Tirhoot*, 716 Christians and 394 others; in *Sarun*, 1 Buddhist, 207 Christians and 14 others; in *Chumparun*, 1,307 Christians and 7 other persons. In the whole division the Hindus are 88·4, and the Mahommedans 11·5 per cent. of the entire population; the remaining classes forming only 0·1 per cent. Of the Bhaugulpore division there were in *Monghyr*, 34 Buddhists, 1,142 Christians and 15,995 people unclassified; in *Bhaugulpore*, 19 Buddhists, 532 Christians and 16,364 unclassified; in *Purneah*, 403 Christians and 2,234 unclassified. In the *Monghyr* district, in every 100 of the population there were 89 Hindus and 10·1 Mahommedans; in the *Bhaugulpore* district, 89·8 Hindus and 9·3 Mahommedans, and in the *Purneah* district, 59·6 Hindus to 40·3 Mahommedans.

In the Rajshahye division, omitting the district of *Pubna*, which is not included in the famine area, there were 366 Buddhists, 1,049 Christians and 40,595 other persons. In the whole division, including Pubna with its 1,211,594 people, there were 38·5 per cent. of Hindus and 61 per cent. of Mahommedans, 0·5 per cent. representing all other denominations.

In the Patna division the males were 49·4 and the females 50·6 per cent. of the whole population. In the Bhaugulpore division, including the Sonthal Pergunnahs, which contain 1,259,287 persons who are not in the centre of the famine area, the males were 50·2, the females 49·8. In the Rajshahye division, including Pubna, the numbers were 50 per cent. of each sex.

The bulk of the population throughout Bengal, estimated at two-thirds and upwards, is agricultural, and the great staple of food cultivation is rice, which is the chief article of the dietary of all classes of Hindus, and is also the most bulky element of the food of most other sects. Other cereals are grown in large quantities, particularly in Behar, which includes the Patna and Bhaugulpore divisions, and is the chief seat of the prevailing distress. There are, unfortunately, no statistics of cultivation to refer to.

With respect to age, in the Patna division, of all religious denominations there were 2,402,216 boys whose age did not exceed 12 years, and 2,117,837 girls in the same category. Above 12 years of age, there were 4,075,140 males and 4,527,550 females. The exact ages of natives of India can seldom be ascertained with any approach to exactitude, but it may safely be assumed, that of the population of this division alone, there were four millions and a half too young to work, and for whom food must be found, without hope of a return in any shape. Upon this class and upon the aged, the chief pressure from scarcity of food would fall.

In the Rajshahye division, exclusive of Pubna, in which no failure of crops is recorded, there were 1,442,356 boys and 1,159,024 girls. Above 12 years of age, which is assumed as the period of adolescence in the Census Report, there were 2,403,973 males and 2,676,791 females.

In the Bhaugulpore division, excluding the Sonthal Pergunnahs, the boys numbered 1,022,894, and the girls 859,140. The adult males were reckoned at 1,667,683, and the women at 1,804,354.

In his report Mr. Beverley has explained at length, and in his paper has given an abstract of his views on the significance of the above figures, of which the results are so little in accordance with those contained in the census reports of European nations.

Until there is a proper registration of births and deaths in Bengal and throughout India generally, all separation of children from adults must be more or less conjectural. Even in determining the probable ages of the boys of wealthy members of the Hindu community on their admission to the Government schools and colleges, the present editor of the *Journal* and compiler of this notice has been compelled to estimate the age from the teeth and other physical characters of the individuals, the family horoscopes produced having been, in many cases, altogether untrustworthy. The age of 12 as distinguishing children from adults is probably too low, if fixed on physiological grounds,—hence some difficulty in accepting the conclusions of the census on this head.

To the undermentioned eleven districts, in which the scarcity of food was not so great, special concessions were also granted, and similar privileges accorded, particularly in relation to loans, advances, village works, and suspension of revenue. —The tables are taken from the letter of the *Times*' Correspondent, quoted above.

Commissionerships.	Districts.	Sub-Divisions.	Square Miles.	Population.
Bhaugulpore	Sonthal Pergunnahs....	4	5,488	1,259,287
Burdwan............	Burdwan	6	3,523	2.034,745
	Bancoorah....................	1	1,346	526,772
	Beerbhoom	1	1,344	695,921
	Midnapore....................	4	5,082	2,540,963
	Hooghly with Howrah	3	1,424	1,488,556
Chota Nagpore	Hazareebagh................	3	7,021	771,875
	Lohardugga	2	12,044	1,237,123
	Singbhoom	1	4,503	415,023
	Máunbhoom	2	4,914	995,570
	Tributary Mehals	—	15,419	405,980
Presidency	Nuddea	6	3,421	1,812,795
Total	—	33	65,529	14,184,610

Chief Towns with Population.		Number of Villages.	Civil Judges.	Magistrates.	Number of Police.	Revenue.	
Head Quarters Town.	Population.					Land.	Gross.
						Rs.	Rs.
—	—	9,872	—	—	310	2,04,304	3,73,548
Burdwan	32,321	5,191	15	12	782	32,08,021	36,09,723
Bancoorah	16,984	2,028	8	6	388	4,03,166	5,45,791
Soory	9,001	2,471	8	6	320	7,27,681	9,08,288
Midnapore	31,491	12,962	8	9	944	22,19,953	26,12,852
Hooghly	34,761	3,190	15	16	1,723	12,56,380	17,66,972
Hazareebagh	11,050	6,703	8	11	586	1,10,637	2,50,036
Ranchee	12,086	6,486	6	6	566	94,506	2,66,060
Chyebassa	—	3,208	2	2	185	57,110	81,987
Purulia	5,696	6,368	8	9	380	92,334	2,17,431
—	—	3,001	—	—	—	—	—
Kishnaghur	25,750	3,691	10	10	872	10,19,701	12,95,557
	180,140	65,171	88	87	7,017	93,93,793 £939,379	1,19,28,236 £,1,192,023

Details of the population enumerated in the last column of the first table are subjoined. Most of the figures in all these tables will be found in Mr. Beverley's paper. They are, however, reproduced in this place in a separate form, for readier reference in relation to the consideration of the famine.

Commissionerships.	Districts.	Hindus.	Mahommedans.
Bhaugulpore	Sonthal Pergunnahs....	650,210	79,786
Burdwan............	Burdwan	1,679,363	348,024
	Bancoorah....................	487,786	13,500
	Beerbhoom	576,908	111,795
	Midnapore.....................	2,285,568	157,047
	Hooghly with Howrah	1,186,435	299,025
Chota Nagpore	Hazareebagh................	647,991	72,338
	Lohardugga	741,952	58,211
	Singbhoom....................	209,632	2,487
	Maunbhoom	827,936	33,622
	Tributary Mehals	139,781	2,348
Presidency	Nuddea	821,032	984,106
Total	—	10,254,594	2,162,289

In the *Sonthal Pergunnahs* there were 392 Christians and 528,899 other persons, the chief of whom are Sonthals. In Burdwan the Christians were 890 in number, and the unclassified population 6,468. In *Bancoorah* there were 70 Christians and 25,416 others. In *Beerbhoom*, 249 Christians and 6,969 unclassified. In *Midnapore* the Christians were 613 and the unclassified 97,735. In *Hooghly with Howrah* there are 2,583 Christians and 513 others.

In the *Sonthal Pergunnahs*, the Hindus formed 51·6 per cent. of the whole population, the Mahommedans 6·4, and the unclassified 42 per cent. In *Burdwan* the percentage of Hindus was 82·5, of Mahommedans 17·1, and of all others 0·4. In *Bancoorah*, Hindus 92·6, Mahommedans 2·6; all others 4·8. In *Beerbhoom* 82·9 Hindus, 16·1 Mahommedans, and 1·0 of others. In *Midnapore* 90·0 Hindus, 6·2 Mahommedans. In *Hooghly with Howrah* 79·7 Hindus, 20·1 Mahommedans, and 0·2 of others. In *Nuddea* 45·3 Hindus, 54·3 Mahommedans, and 0·4 of others.

In the Sonthal Pergunnahs there were 269,751 boys, and 242,836 girls, 359,965 male adults, and 386,735 women. In the Burdwan division the boys numbered 1,248,530, the girls 1,002,545, the males above 12 years of age 2,323,578, the females 2,712,304. In Chota Nagpore the numbers were respectively 816,534 boys, and 663,053 girls, 1,116,846 men, and 1,229,138 women. In Nuddea the boys were 331,016, the girls 265,457, whilst the males above 12 years of age numbered 546,100, the females 670,213.

The following summary of the area and population of the threatened divisions, illustrated by excellent maps prepared by Mr. Trelawney Saunders, is appended to Sir Bartle Frere's treatise *On the Impending Bengal Famine.*

Threatened Divisions in the Lower Provinces.

Rate of Population per Square Mile.	Divisions.	Area in Square Miles.	Population.	Number of Towns and Villages.
553	Patna	23,732	13,122,743	29,038
354	Bhaugulpore	18,685	6,613,358	19,247
503	Rajshahye	17,694	8,893,738	26,853
573	Burdwan	12,719	7,286,957	25,842
	Threatened Division in the North-West Provinces.			
442	Benares	15,556	6,877,034	27,467
	Threatened total	88,386	42,793,830	128,446

The Benares is conterminous with the Patna division, and consists of five districts and twenty-three sub-divisions. It is under the administrative charge of the Lieutenant-Governor of the North-West Provinces.

IV.—*English Literature of* 1873.

THE following extract from the *Publishers' Circular* conveys general and statistical information regarding the books issued in 1873:—

"Our contemporary the *Athenæum* has, by the hands of its many excellent foreign correspondents, given us a *résumé* of the literary work of the year in the various civilised countries of Europe, but has, as yet, omitted our own, the most fertile of all. But while the largest number of works published in one country is 659, one subject, that of theology, alone amounts with us to 770 works, the grand total of new books, new editions, and American importations, amounting to the immense aggregate of 4,991 different books and pamphlets. Or, if we throw out the new editions, which are little more than a third of the new books, we shall find that we have 3,463. These exhibit an immense and increasing literary industry; and we may point with satisfaction to the careful tabulation of the results of the publishing year which will be found in this number, a tabulation which is divided into fourteen different heads of subjects, ranged under the twelve months, and divided as heretofore into three sub-headings—*, books entirely new, or issued as such; †, new editions of books which the public thinks worthy of preserving, illustrating the Darwinian theory of the survival of the fittest; and ‡, books which, in increasing numbers, as may be seen by comparison, we import from our American cousins. The editor may refer, not with undue pride, but with some satisfaction, to the clearness and handiness of this table, and may claim for the gentleman by whom it was prepared the merit of great and continuous care and labour, although the result may look but small when compressed into type.

"Novels, tales, and works of fiction take the lead, with 831 works, an increase of 10 per cent. on last year. Theology, sermons, and biblical works, hitherto in the ascendant, rank second in the list; we have from this source 770 works. The next highest number is 588 works of art and science and illustrated works classified with art as being in some measure artistic. We are glad to find that this class of works is rapidly rising; as we become more exact and scientific, we may become, perhaps, less sensational. Law and jurisprudence furnish the smallest quota, but these somewhat dry treatises give us the respectable number of 142. The next smallest number is 170 pamphlets, political and social treatises; and medicine and surgery furnish us with 179 works; while the *belles lettres*, essays, and monographs on especial subjects give us 199. This year in poetry and the drama, including 16 such works imported from America, we have the respectable total of 329; while in history and biography we have a total of 428, a great improvement on last year. Perhaps also among the historical works we may put a fair portion of the 227 juvenile works and tales, many of which are founded on events in history. For the young also we must add, not all, but the main portion of the 413 educational, classical, and philological works, and some part of the 283 works on voyages, travels, and geographical research, while we reserve entirely for the grown up and mature the 159 works on political economy, social subjects, trade and commerce, which closes our list. December and November are the great publishing months, April taking third place, the last month, December, exhausting the efforts of the next January, which only produces a comparatively feeble issue."

Summary for each Month.

	New Books.	New Editions.	American Importations.
January	99	26	—
February	231	114	36
March	296	99	20
April	337	141	36
May	299	131	46
June	258	131	19
July	193	93	24
August	246	86	18
September	198	110	—
October	280	85	—
November	425	140	—
December	601	130	43
	3,463	1,286	242

Note.—Making the total during the twelve months, full titles, 4,991 in the *Publishers' Circular*.

Analytical Table of Books Published in 1873.

Subjects.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total of Books on each Subject for the Year.	
Theology, sermons, biblical, &c.	*14	44	42	57	60	38	26	44	25	36	68	101	564	
	† 7	17	17	20	24	22	12	12	13	8	22	18	192	
	‡—	6	2	1	4	1	—	—	—	—	—	—	14	
													——	770
Educational, classical, and philological	* 2	18	34	32	35	22	19	19	23	27	34	26	296	
	† 3	15	11	11	4	15	4	6	14	9	12	7	111	
	‡—	2	—	1	1	1	—	1	—	—	—	—	6	
													——	413
Juvenile works and tales	*—	4	19	2	4	6	3	18	19	35	81	28	219	
	†—	1	2	—	4	5	2	2	3	3	12	2	36	
	‡—	—	1	—	1	—	—	—	—	—	—	—	2	
													——	257
Novels, tales, and other fiction	*19	31	24	46	31	41	24	41	31	58	53	108	507	
	† 4	24	23	35	35	34	28	16	29	18	27	23	296	
	‡—	6	2	7	2	3	2	1	—	—	—	5	28	
													——	831
Law, jurisprudence, &c.	* 1	5	7	19	12	1	3	4	2	7	9	7	77	
	† 1	3	5	8	4	2	3	4	5	3	2	2	42	
	‡—	4	2	5	3	3	3	2	—	—	—	1	23	
													——	142
Political and social economy, trade and commerce	* 2	9	6	12	12	17	7	11	2	8	9	9	104	
	† 1	1	3	—	4	6	8	4	—	1	7	7	38	
	‡—	2	—	1	2	3	2	2	—	—	—	5	17	
													——	159
Arts, science, and illustrated works	* 9	16	54	29	38	38	26	27	24	29	36	76	402	
	† 2	12	11	25	16	10	7	13	8	17	20	16	157	
	‡—	2	3	4	11	1	1	2	—	—	—	5	29	
													——	588
Voyages, travels, and geographical research................	* 2	8	13	16	14	17	22	15	8	16	18	42	191	
	† 2	3	4	3	5	10	5	6	11	5	6	6	66	
	‡—	1	3	2	5	3	4	4	—	—	—	4	26	
													——	283
History, biography, &c.	* 5	20	23	33	31	25	19	15	17	17	36	47	288	
	†—	14	6	17	12	9	10	10	9	4	10	18	119	
	‡—	1	2	6	2	—	5	2	—	—	—	3	21	
													——	428
Poetry and the drama	* 9	20	12	20	26	15	11	18	12	15	26	37	221	
	† 4	14	3	9	14	9	4	1	7	7	7	13	92	
	‡—	4	2	1	2	—	2	—	—	—	—	5	16	
													——	329
Year books and serials in volumes	*25	21	23	17	9	7	19	9	4	7	17	73	231	
	†—	—	—	—	—	—	—	—	—	1	—	1	2	
	‡—	—	—	2	5	—	—	—	—	—	—	3	10	
													——	243
Medicine, surgery, &c.	* 2	9	9	10	3	14	7	10	8	10	12	10	104	
	† 1	4	5	3	3	3	6	7	3	4	6	6	51	
	‡—	1	1	2	2	—	3	3	—	—	—	12	24	
													——	179
Belles lettres, essays, monographs, &c.	* 4	14	11	16	9	13	7	5	4	7	16	16	125	
	† 1	5	6	5	4	4	4	5	4	5	5	10	58	
	‡—	4	2	2	3	2	2	1	—	—	—	—	58	
													——	199
Miscellaneous, including pamphlets, not sermons............	* 5	12	19	28	6	4	—	10	14	8	10	18	134	
	†—	1	3	5	2	2	—	—	4	—	4	5	26	
	‡—	2	1	2	3	2	—	—	—	—	—	—	10	
													——	170
														4,991

* New books. † New editions. ‡ American importations.

REGISTRATION OF THE UNITED KINGDOM.

No. I.—ENGLAND AND WALES.

MARRIAGES—Quarter ended September, 1873.
BIRTHS and DEATHS—Quarter ended December, 1873.

A.—*Serial Table of* Marriages, Births, *and* Deaths, *returned in the Years* 1873-67, *and in the* Quarters *of those Years.*

Calendar Years, 1873-67:—*Numbers.*

Years.........	'73.	'72.	'71.	'70.	'69.	'68.	'67.
Marriages No.	—	200,937	190,112	181,655	176,970	176,962	179,154
Births........ ,,	831,809	824,646	797,428	792,787	773,381	786,858	768,349
Deaths .... ,,	493,993	492,065	514,879	515,329	494,828	480,622	471,073

Quarters *of each Calendar Year*, 1873-67.

(I.) Marriages:—*Numbers.*

Qrs. ended last day of	'73.	'72.	'71.	'70.	'69.	'68.	'67.
March........ No.	41,209	40,557	36,305	36,455	37,752	36,696	36,441
June .... ,,	53,332	50,197	48,831	46,720	43,202	45,364	45,589
September ,,	49,658	49,806	46,536	43,900	43,978	43,509	44,086
December ,,	—	60,377	58,440	54,580	52,038	51,393	53,038

(II.) Births:—*Numbers.*

Qrs. ended last day of	'73.	'72.	'71.	'70.	'69.	'68.	'67.
March........ No.	216,367	208,737	209,523	206,366	203,775	198,584	194,763
June .... ,,	206,618	208,711	201,165	203,615	188,618	202,839	199,660
September ,,	203,609	201,105	193,271	192,521	190,394	192,583	190,782
December ,,	205,215	206,093	193,469	190,285	190,594	192,852	183,144

(III.) Deaths:—*Numbers.*

Qrs. ended last day of	'73.	'72.	'71.	'70.	'69.	'68.	'67.
March........ No.	132,626	134,992	138,393	143,773	133,096	119,676	134,008
June .... ,,	118,751	120,914	120,793	121,128	118,947	110,010	112,355
September ,,	114,343	118,786	121,332	124,297	114,644	130,482	108,513
December ,,	128,283	117,373	134,361	126,131	128,141	120,454	116,197

Annual Rates of MARRIAGES, BIRTHS, *and* DEATHS, *per* 1,000 PERSONS LIVING *in the Years* 1873-67, *and the* QUARTERS *of those Years.*

Calendar YEARS, 1873-67:—*General Ratios.*

YEARS............	'73.	Mean '63–72.	'72.	'71.	'70.	'69.	'68.	'67.
Estmtd. Popln. of England *in thousands* in middle of each Year....	23,356,	—	23,068,	22,783,	22,501,	22,223,	21,949,	21,678,
Persons Married	—	16·8	17·4	16·7	16·1	15·9	16·1	16·5
Births	35·7	35·3	35·7	35·0	35·2	34·8	35·8	35·4
Deaths................	21·2	22·6	21·3	22·6	22·9	22·3	21·9	21·7

QUARTERS *of each Calendar Year*, 1873-67.

(I.) PERSONS MARRIED:—*Ratio per* 1,000.

Qrs. ended last day of	'73.	Mean '63–72.	'72.	'71.	'70.	'69.	'68.	'67.
March	14·3	13·8	14·1	12·9	13·2	13·8	13·5	13·7
June....................	18·3	17·1	17·5	17·2	16·7	15·6	16·6	16·9
September	16·9	16·4	17·1	16·2	15·5	15·7	15·8	16·2
December	—	19·9	20·7	20·4	19·2	18·6	18·6	19·5

(II.) BIRTHS:—*Ratio per* 1,000.

Qrs. ended last day of	'73.	Mean '63–72.	'72.	'71.	'70.	'69.	'68.	'67.
March	37·6	37·0	36·3	37·3	37·3	37·3	36·4	36·6
June....................	35·5	36·3	36·3	35·5	36·4	34·1	37·2	37·1
September	34·6	34·2	34·6	33·7	34·0	34·1	34·9	35·0
December	34·9	34·2	35·4	33·7	33·6	34·1	35·0	33·6

(III.) DEATHS:—*Ratio per* 1,000.

Qrs. ended last day of	'73.	Mean '63–72.	'72.	'71.	'70.	'69.	'68.	'67.
March	23·0	25·2	23·5	24·7	26·0	24·4	21·9	25·2
June....................	20·4	21·8	21·0	21·3	21·6	21·5	20·2	20·9
September	19·4	21·4	20·4	21·1	22·0	20·5	23·7	19·9
December	21·8	22·2	20·2	23·4	22·3	22·9	21·8	21·3

B.—*Comparative Table of* CONSOLS, PROVISIONS, PAUPERISM, *and* TEMPERATURE *in each of the Nine* QUARTERS *ended December*, 1873.

1 Quarters ending	2 Average Price of Consols (for Money).	3 Average Rate of Bank of England Discount.	4 Average Price of Wheat per Quarter in England and Wales.	5 Average Prices of Meat per lb. at the Metropolitan Meat Market (by the Carcase), with the *Mean* Prices.	6	7 Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	8 Pauperism. Quarterly Average of the Number of Paupers relieved on the *last day* of each week.	9	10 Mean Temperature.
				Beef.	Mutton.		In-door.	Out-door.	
	£		*s. d.*	*d. d. d.*	*d. d. d.*	*s. s. s.*			°
1871 Dec. 31	93	4·2	56 3	5—$7\frac{3}{4}$ $6\frac{3}{8}$	$5\frac{1}{2}$—$8\frac{1}{4}$ $6\frac{7}{8}$	75—104 89	141,027	759,666	41·8
1872 Mar. 31	$92\frac{4}{8}$	3·0	55 4	5—$7\frac{1}{4}$ $6\frac{1}{8}$	$5\frac{3}{4}$—$8\frac{1}{2}$ $7\frac{1}{8}$	80—120 100	149,599	776,793	43·6
June 30	$92\frac{7}{8}$	4·0	56 8	$5\frac{1}{4}$—$7\frac{1}{2}$ $6\frac{3}{8}$	6—$8\frac{3}{4}$ $7\frac{3}{8}$	124—150 137	134,412	724,463	52·8
Sept. 30	$92\frac{4}{8}$	3·5	58 11	$5\frac{1}{4}$—8 $6\frac{5}{8}$	$6\frac{1}{4}$—$9\frac{1}{4}$ $7\frac{3}{4}$	105—133 119	126,377	681,987	61·1
Dec. 31	$92\frac{2}{8}$	5·9	57 3	$5\frac{1}{2}$—8 $6\frac{3}{4}$	6—$8\frac{1}{2}$ $7\frac{1}{4}$	153—187 170	138,648	675,598	45·3
1873 Mar. 31	$92\frac{3}{8}$	3·9	55 10	$5\frac{1}{2}$—8 $6\frac{3}{4}$	$6\frac{1}{4}$—9 $7\frac{5}{8}$	179—235 207	150,392	703,357	39·4
June 30	$93\frac{3}{8}$	5·2	56 5	6—$8\frac{3}{4}$ $7\frac{3}{8}$	$6\frac{3}{4}$—$9\frac{1}{2}$ $8\frac{1}{8}$	183—242 212	135,491	666,126	50·2
Sept. 30	$92\frac{4}{8}$	3·8	61 4	$5\frac{3}{4}$—$8\frac{3}{4}$ $7\frac{1}{4}$	$6\frac{1}{2}$—$9\frac{1}{4}$ $7\frac{7}{8}$	95—120 107	127,674	632,412	60·3
Dec. 31	$92\frac{4}{8}$	6·3	61 1	5—$8\frac{1}{2}$ $6\frac{3}{4}$	$5\frac{3}{4}$—$8\frac{1}{2}$ $7\frac{1}{8}$	96—117 107	—	—	44·2

C.—*General Average Death-Rate Table:—Annual Rate of Mortality to* 1,000 *of the Population in the Eleven Divisions of England.*

Divisions.	Average Annual Rate of Mortality to 1,000 Living in						
	Ten Years, 1861-70.	1872. Quarters ending		1873. Quarters ending			
		Sept.	Dec.	March.	June.	Sept.	Dec.
England and Wales	22·4	20·4	20·2	23·0	20·4	19·4	21·8
I. London	24·3	21·4	19·8	22·7	20·0	21·8	25·3
II. South-Eastern counties	19·1	16·9	16·2	18·8	16·5	15·3	16·3
III. South Midland ,, ...	20·2	18·3	18·0	20·8	17·5	16·5	17·8
IV. Eastern counties	20·1	17·5	18·1	20·9	18·6	17·3	17·7
V. South-Western counties	19·9	16·1	17·8	21·2	18·2	15·0	17·9
VI. West Midland ,, ...	21·8	19·6	20·8	23·6	19·8	18·3	21·5
VII. North Midland ,, ...	20·8	21·4	19·3	22·9	20·1	18·5	19·5
VIII. North-Western ,, ...	26·3	24·0	23·8	26·9	24·1	23·1	24·4
IX. Yorkshire	24·0	23·9	22·5	23·8	22·1	21·8	23·3
X. Northern counties	22·7	22·9	22·3	23·8	22·9	23·5	25·1
XI. Monmouthshire and Wales	21·6	18·0	19·9	23·8	21·7	17·4	21·7

D.—*Special Average Death-Rate Table:*—Annual Rate *of* Mortality *per* 1,000 *in* Town *and* Country Districts *of* England *in each Quarter of the Years* 1873-71.

	Area in Statute Acres.	Population Enumerated. 1871.	Quarters ending	Annual Rate of Mortality per 1,000 in each Quarter of the Years 1873.	Mean '63-72.	1872.	1871.
In 130 Districts, and 59 Sub-districts, comprising the *Chief Towns*	3,183,965	12,892,982	March	24·4	27·3	25·4	26·7
			June	21·6	23·4	22·6	22·9
			Sept.	22·0	24·1	23·0	24·0
			Dec.	24·7	24·8	22·0	26·4
			Year	23·2	24·9	23·3	25·0
			Year	18·5	19·7	18·6	19·5
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly *Small Towns* and *Country Parishes*	34,135,256	9,819,284	March	21·1	22·6	20·9	22·0
			June	18·8	19·7	18·9	19·1
			Sept.	16·0	17·7	17·0	17·4
			Dec.	17·9	18·7	17·7	19·5

Note.—The three months January, February, March, contain 90, in leap year 91 days; the three months April, May, June, 91 days; each of the last two quarters of the year, 92 days. For this inequality a correction has been made in these calculations, also for the difference between 365 and 365·25 days, and 366 and 365·25 days in leap year.

E.—*Special Town Table:*—Population; Births, Deaths; Mean Temperature *and* Rainfall *in the Fourth Quarter of* 1873, *in* Twenty-One *Large Towns.*

Cities, &c.	Estimated Population in the Middle of the Year 1873.	Births in 14 Weeks ending 3rd Jan., 1874.	Deaths in 14 Weeks ending 3rd Jan., 1874.	Annual Rate to 1,000 Living during the 14 Weeks ending 3rd January. Births.	Deaths.	Mean Temperature in 14 Weeks ending 3rd Jan., 1874.	Rainfall in Inches in 14 Weeks ending 3rd Jan., 1874.
Total of 21 towns in U. K.	7,507,575	73,196	51,171	36·3	25·4	44·1	6·51
London	3,356,073	31,905	22,740	35·4	25·3	44·5	5·68
Portsmouth	118,280	1,025	646	32·5	20·5	47·2	7·03
Norwich	81,677	721	446	32·9	20·4	44·1	3·51
Bristol	189,648	1,831	1,157	36·0	22·7	—	—
Wolverhampton	70,084	688	483	36·6	25·7	44·4	5·64
Birmingham	355,540	3,824	2,623	40·1	27·5	45·2	4·65
Leicester	102,694	1,242	599	45·2	21·8	44·3	4·67
Nottingham	89,557	852	546	35·5	22·7	42·9	4·05
Liverpool	505,274	4,806	3,393	35·5	25·0	44·8	6·68
Manchester	354,057	3,476	2,628	36·6	27·7	43·7	8·07
alford	130,468	1,470	942	42·0	26·9	44·8	8·61
ldham	85,141	957	565	41·9	24·7	—	10·93
Bradford	156,609	1,632	1,066	38·8	25·4	45·6	5·71
Leeds	272,619	3,040	2,252	41·6	30·8	43·9	4·86
heffield	254,352	2,929	1,720	42·9	25·2	45·5	5·35
ull	128,125	1,305	749	38·1	21·9	43·9	4·74
underland	102,450	1,177	588	42·8	21·4	—	—
ewcastle-on-Tyne	133,246	1,459	1,190	40·9	33·4	—	—
dinburgh	208,553	1,716	1,203	30·7	21·5	—	—
lasgow	498,462	5,003	3,605	37·4	27·0	42·8	13·32
ublin	314,666	2,138	2,030	25·3	24·0	44·8	6·09

F.—*Divisional Table:*—MARRIAGES *Registered in Quarters ended 30th September*, 1873-71; *and* BIRTHS *and* DEATHS *in Quarters ended 31st December*, 1873-71.

1 DIVISIONS. (England and Wales.)	2 AREA* in Statute Acres.	3 POPULATION, 1871. (*Persons.*)	4 MARRIAGES in Quarters ended 30th September. 1873.	5 1872.	6 1871.
ENGLD. & WALES....*Totals*	37,319,221	No. 22,712,266	No. 49,658	No. 49,806	No. 46,636
I. London	75,362	3,254,260	8,892	8,892	8,572
II. South-Eastern	3,994,431	2,167,726	3,832	3,830	3,752
III. South Midland	3,201,325	1,442,654	2,463	2,521	2,229
IV. Eastern	3,211,441	1,218,728	1,856	1,953	1,811
V. South-Western	4,981,170	1,880,777	3,227	3,274	3,159
VI. West Midland	3,945,460	2,720,669	5,890	5,892	5,401
VII. North Midland	3,535,445	1,406,935	2,921	2,719	2,527
VIII. North-Western	1,998,914	3,389,044	8,546	9,043	8,455
IX. Yorkshire	3,702,384	2,395,569	5,675	5,438	5,347
X. Northern	3,547,947	1,414,234	3,405	3,390	2,835
XI. Monmthsh. & Wales	5,125,342	1,421,670	2,951	2,854	2,521

7 DIVISIONS. (England and Wales.)	8 BIRTHS in Quarters ended 31st December. 1873.	9 1872.	10 1871.	11 DEATHS in Quarters ended 31st December. 1873.	12 1872.	13 1871.
ENGLD. & WALES....*Totals*	No. 205,215	No. 206,093	No. 193,463	No. 128,283	No. 117,373	No. 134,387
I. London	31,905	29,010	27,889	22,740	16,336	20,991
II. South-Eastern	17,508	17,629	16,987	9,261	9,024	9,663
III. South Midland	12,028	12,446	11,610	6,629	6,649	7,239
IV. Eastern	9,626	10,038	9,374	5,514	5,615	6,398
V. South-Western	13,624	14,342	14,051	8,534	8,460	10,002
VI. West Midland	24,920	25,676	23,921	15,114	14,427	16,082
VII. North Midland	12,788	12,584	12,180	7,047	6,911	7,558
VIII. North-Western	32,175	33,672	30,656	21,498	20,676	23,899
IX. Yorkshire	23,433	23,705	21,869	14,616	13,907	14,830
X. Northern	14,967	14,904	13,300	9,391	8,172	9,956
XI. Monmthsh. & Wales	12,241	12,087	11,656	7,939	7,196	7,769

* These are revised figures, and will be found to differ somewhat from those hitherto published.

G.—*General Meteorological Table, Quarter ended December*, 1873.

[Abstracted from the particulars supplied to the Registrar-General by JAMES GLAISHER, ESQ., F.R.S., &c.]

1873. Months.	Temperature of										Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
	Air.			Evaporation.		Dew Point.		Air—Daily Range.		Water of the Thames				
	Mean.	Diff. from Average of 102 Years.	Diff. from Average of 32 Years.	Mean.	Diff. from Average of 32 Years.	Mean.	Diff. from Average of 32 Years.	Mean.	Diff. from Average of 32 Years.		Mean.	Diff. from Average of 32 Years.	Mean.	Diff. from Average of 32 Years.
	°	°	°	°	°	°	°	°	°	°	In.	In.	Gr.	Gr.
Oct. ...	47·8	−1·8	−2·4	46·1	−2·2	44·2	−1·9	16·4	+1·6	53·6	·290	−·024	3·3	−0·3
Nov. ...	44·2	+1·9	+0·6	42·4	+1·0	40·3	+0·8	11·3	−0·4	44·3	·250	+·003	2·9	+0·1
Dec. ...	40·6	+1·5	+0·3	39·3	+0·5	37·6	+0·6	10·5	+1·1	43·2	·225	+·003	2·6	0·0
Mean ...	44·2	+0·5	−0·5	42·6	−0·2	40·7	+0·2	12·7	+0·8	47·0	·255	−·006	2·9	−0·1

1873. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Horizontal Movement of the Air.	Reading of Thermometer on Grass.				
										Number of Nights it was			Lowest Reading at Night.	Highest Reading at Night.
	Mean.	Diff. from Average of 32 Years.	Mean.	Diff. from Average of 32 Years.	Mean.	Diff. from Average of 32 Years.	Amnt.	Diff. from Average of 58 Years.		At or below 30°.	Between 30° and 40°.	Above 40°.		
			In.	In.	Gr.	Gr.	In.	In.	Miles.				°	°
Oct. ...	88	+ 1	29·685	− ·014	542	+ 3	2·6	−0·2	237	10	11	10	20·0	48·1
Nov. ...	86	− 2	29·708	− ·047	546	− 2	2·6	+0·3	296	6	21	3	19·0	44·9
Dec. ...	90	+ 2	30·107	+ ·310	558	+ 6	0·3	−1·7	247	17	12	2	13·9	43·8
Mean ...	88	0	29·833	+ ·083	549	+ 2	Sum 5·5	Sum −1·6	Mean 260	Sum 33	Sum 44	Sum 15	Lowest 13·9	Highst 48·1

Note.—In reading this table it will be borne in mind that the sign (−) minus signifies below the average, and that the sign (+) plus signifies above the average.

The mean temperature of October was 47°·8, being 1°·8 lower than the average of 102 years, the same as the corresponding value in 1872, but lower than in 1871 by 1°·6.

The mean temperature of November was 44°·2, being 1°·9 higher than the average of the preceding 102 years, lower than in 1872 by 1°·1, but higher than in 1871 by 6°·6.

The mean temperature of December was 40°·6, being 1°·5 higher than the average of the preceding 102 years, lower than in 1871 by 2°·3, but higher than in 1871 by 2°·3, in 1870 by 7°·0, and in 1869 by 2°·7 respectively.

The mean high day temperatures were higher than their respective averages in November and December, but lower in October.

The mean low night temperatures were lower than their respective averages in October and December, but higher in November.

Therefore the days and nights of October were cold, and those of November warm, while the days of December were warm and the nights cold.

H.—*Special Meteorological Table, Quarter ended* 31*st December*, 1873.

1	2	3	4	5	6	7	8	9
Names of Stations.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermometer.	Lowest Reading of the Thermometer.	Range of Temperature in the Quarter.	Mean Monthly Range of Temperature.	Mean Daily Range of Temperature.	*Mean Temperature of the Air.*	Mean Degree of Humidity.
	in.	°	°	°	°	°	°	
Guernsey	29·726	68·5	32·0	36·5	22·5	8·0	49·0	86
Osborne	29·737	72·6	26·3	46·3	31·9	11·3	46·3	90
Barnstaple	29·716	72·0	26·0	46·0	31·5	9·9	47·1	89
Royal Observatory	29·754	75·1	21·1	54·0	38·3	12·7	44·2	88
Royston	29·771	72·9	20·6	52·3	39·9	13·5	43·6	87
Norwich	29·717	69·5	22·0	47·5	34·2	12·0	43·5	93
Llandudno	29·694	67·4	30·0	37·4	28·8	9·8	46·6	82
Derby	29·713	67·0	21·0	46·0	33·3	11·1	43·6	88
Stonyhurst	29·720	68·0	24·9	43·1	31·6	11·1	43·3	87
Bradford	29·669	68·4	28·0	40·4	29·9	10·8	44·5	86
Leeds	29·682	70·0	25·0	45·0	33·0	10·8	44·7	85

10	11	12	13	14	15	16	17	18
Names of Stations.	Wind.					Mean Amount of Cloud.	Rain.	
	Mean estimated Strength.	Relative Proportion of					Number of Days on which it fell.	Amount Collected.
		N.	E.	S.	W.			
								in.
Guernsey	1·3	6	7	9	9	6·2	48	9·43
Osborne	0·3	7	5	9	10	7·2	44	6·45
Barnstaple	1·2	3	7	11	10	6·1	59	8·05
Royal Observatory	0·4	4	6	9	12	7·2	35	5·44
Royston	—	—	—	—	—	6·4	39	4·83
Norwich	—	5	4	10	11	—	30	3·44
Llandudno	0·8	2	5	6	17	6·6	46	7·10
Derby	—	5	4	8	14	—	39	4·69
Stonyhurst	—	6	4	9	12	7·4	79	14·94
Bradford	0·8	—	—	—	—	7·5	35	5·03
Leeds	1·2	7	4	4	15	7·9	46	4·44

No. II.—SCOTLAND.

NOTE.—The usual Quarterly Tables relating to Scotland are omitted.

The Report for the Quarter ending 31st December last has not yet been issued, in consequence of delay occasioned by the illness of the Superintendent of the Statistical Department.

No. III.—GREAT BRITAIN AND IRELAND.

SUMMARY *of* MARRIAGES, *in the Quarter ended* 30*th September*, 1873; *and* BIRTHS *and* DEATHS, *in the Quarter ended* 31*st December*, 1873.

COUNTRIES.	[000's omitted.]		Marriages.	Per 1,000 of Population.	Births.	Per 1,000 of Population.	Deaths.	Per 1,000 of Population.
	Area in Statute Acres.	Population, 1871. (*Persons.*)						
		No.	No.	Ratio.	No.	Ratio.	No.	Ratio.
England and Wales	37,319,	22,712,	49,658	2·2	205,215	9·0	128,283	5·6
Scotland	19,639,	3,360,	5,816	1·7	29,270	8·7	18,411	5·5
Ireland	20,323,	5,412,	5,147	1·0	32,622	6·0	21,558	4·0
GREAT BRITAIN AND IRELAND	77,281,	31,484,	60,621	1·9	267,107	8·5	168,252	5·3

Note.—The numbers against Ireland represent the marriages, births, and deaths that the local registrars have *succeeded* in recording; but how far the registration approximates to absolute completeness, does not at present appear to be known. It will be seen that the Irish ratios of births, deaths, and marriages are much under those of England and Scotland.—ED. *S. J.*

Trade of United Kingdom, 1873-72-71.—*Distribution of* **Exports*** *from United Kingdom, according to the Declared Real Value of the Exports; and the Computed Real Value (Ex-duty) of* **Imports** *at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (*excluding Gold and Silver*), Imported from, and Exported to, the following Foreign Countries, &c. [000's omitted.]	Whole Years.					
	1873.		1872.		1871.	
	Imports from	*Exports to*	Imports from	*Exports to*	Imports from	*Exports to*
I.—FOREIGN COUNTRIES:	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	35,527,	16,708,	36,974,	12,089,	33,664,	10,479,
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	46,257,	51,084,	45,494,	54,000,	46,827,	47,762,
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	59,373,	25,796,	56,206,	24,788,	42,404,	24,354,
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	6,724,	10,910,	7,257,	9,887,	8,063,	9,314,
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	20,952,	15,000,	22,827,	15,671,	24,393,	13,454,
Northern Africa; viz., Tripoli, Tunis, Algeria and Morocco	1,550,	444,	1,165,	420,	1,009,	365,
Western Africa	1,929,	1,125,	2,011,	1,090,	1,942,	1,029,
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Mooria Islands	104,	280,	141,	255,	196,	142,
Indian Seas, Siam, Sumatra, Java, Philippines; other Islands	1,985,	1,224,	2,298,	1,171,	2,028,	1,332,
South Sea Islands	42,	94,	116,	—	76,	23,
China, including **Hong Kong**	13,949,	9,979,	14,613,	11,491,	12,062,	10,986,
United States of America	71,486,	33,561,	54,665,	40,738,	60,066,	34,229,
Mexico and Central America	1,893,	1,529,	1,561,	1,131,	1,453,	1,359,
Foreign West Indies and Hayti	5,766,	4,122,	6,025,	4,682,	3,531,	4,075,
South America (Northern), New Granada, Venezuela, and Ecuador	1,483,	3,715,	1,380,	3,761,	1,364,	3,006,
„ **(Pacific)**, Peru, Bolivia, Chili, and Patagonia	10,675,	5,766,	10,701,	6,010,	8,160,	4,210,
„ **(Atlantic)** Brazil, Uruguay, and Buenos Ayres	11,248,	13,037,	12,769,	13,221,	9,838,	9,824,
Whale Fisheries; Grnlnd., Davis' Straits, Southn. Whale Fishery, & Falkland Islands	146,	—	154,	18,	147,	12,
Total—Foreign Countries	291,089,	194,374,	276,357,	200,423,	257,223,	175,955,
II.—BRITISH POSSESSIONS:						
British India, Ceylon, and Singapore	37,738,	24,568,	40,697,	21,934,	36,877,	20,866
Austral. Cols.—N. So. W., Vict., and Queensld.	10,280,	11,808,	10,381,	10,063,	9,002,	7,118
„ „ So. Aus., W. Aus., Tasm., and N. Zealand	6,942,	5,830,	5,628,	4,062,	5,515,	2,916
British North America	11,555,	8,629,	9,086,	10,234,	9,258,	8,296
„ W. Indies with Btsh. Guiana & Honduras	6,711,	3,510,	6,629,	3,490,	7,152,	3,161
Cape and Natal	4,138,	4,338,	3,720,	3,701,	2,876,	2,198
Brt. W. Co. of Af., Ascension and St. Helena	479,	727,	492,	786,	729,	698
Mauritius	1,298,	582,	1,555,	561,	836,	503
Channel Islands	560,	707,	625,	707,	567,	808
Total—British Possessions	79,701,	60,699,	78,813,	55,538,	72,812,	46,564
General Total £	370,790,	255,073,	355,170,	255,961,	330,035,	222,519

* *i.e.*, British and Irish produce and manufactures.

I.—*Number of Occupiers of Land and of Owners of Live Stock; the Average Size of each Holding in* 1873.

1	2	3	4
ENGLAND. — Counties, Proper.	Number of Returns Obtained from		Average Acreage of each Occupier.
	Occupiers of Land.	Owners of Live Stock only.	
South-Eastern—			
Surrey	5,602	303	53
Kent	11,428	191	63
Sussex	9,139	39	72
Southampton	8,859	91	78
Berks	4,303	33	86
Total	39,331	657	70
South Midland—			
Middlesex	3,062	644	37
Hertford	4,248	19	79
Buckingham	5,601	13	71
Oxford	4,553	13	90
Northampton	7,297	12	76
Huntingdon	3,019	13	69
Bedford	4,044	1	63
Cambridge	8,060	9	59
Total	39,884	724	68
Eastern—			
Essex	9,900	50	82
Suffolk	10,523	38	72
Norfolk	18,945	44	56
Total	39,368	132	70
South-Western—			
Wilts	7,995	14	92
Dorset	5,405	15	86
Devon	18,732	32	57
Cornwall	13,859	14	37
Somerset	17,487	13	47
Total	63,478	88	64
West Midland—			
Gloucester	11,734	13	55
Hereford	7,545	10	57
Salop	11,636	19	59
Stafford	14,179	191	41
Worcester	8,153	65	48
Warwick	7,911	671	61
Total	61,158	969	53

1	2	3	4
ENGLAND. — Counties, Proper.	Number of Returns Obtained from		Average Acreage of each Occupier.
	Occupiers of Land.	Owners of Live Stock only.	
North Midland—			
Leicester	8,539	29	54
Rutland	1,378	—	61
Lincoln	26,434	83	55
Nottingham	8,468	32	52
Derby	13,759	15	36
Total	58,578	159	52
North-Western—			
Chester	13,783	55	37
Lancaster	23,161	416	32
Total	36,944	471	35
York—			
East Riding	8,627	47	77
North „	15,085	30	54
West „	31,840	176	37
Total	55,552	253	56
Northern—			
Durham	6,527	44	62
Northumberland	5,536	20	69
Cumberland	7,804	315	122
Westmorland	3,683	6	65
Total	23,550	385	79
Total of England	417,843	3,838	56
Wales—			
Monmouth	4,812	9	47
North Wales	27,405	86	39
South „	30,112	88	54
Total of Wales	62,329	183	47
Total of Scotland	80,857	2,100	56
Total of Great Britain	561,029	6,121	55

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* See "Annual Reports" of the Registrar-General for Ireland.

II.—*Population, Area, Abstract of Acreage under Crops, &c., and Number of Live*

	Years.	England.	Wales.	Scotland.	Total for Great Britain.
Total population	1871	21,495,	1,217,	3,360,	26,072,
Total area (in statute acres)	—	32,597,	4,722,	19,496,	56,815,
Abstract of Acreage—					
Under all kinds of crops, bare fallow, and grass	1872	23,830,	2,636,	4,538,	31,004,
	'73	23,894,	2,647,	4,562,	31,103,
Under corn crops (including beans and peas)	'72	7,577,	562,	1,435,	9,574,
	'73	7,502,	537,	1,420,	9,459,
Under green crops	'72	2,779,	136,	701,	3,616,
	'73	2,749,	133,	694,	3,576,
„ bare fallow	'72	585,	35,	28,	648,
	'73	649,	35,	22,	706,
„ grass—Clover, &c. under rotation	'72	2,822,	371,	1,320,	4,513,
	'73	2,678,	361,	1,328,	4,367,
„ permanent pasture	'72	9,991,	1,532,	1,053,	12,576,
	'73	10,238,	1,582,	1,097,	12,916,
*Percentage of Acreage—**					
Under corn crops (including beans and peas)	1872	31·8	21·3	31·6	30·9
	'73	31·4	20·3	31·1	30·4
Under green crops	'72	11·6	5·2	15·5	11·6
	'73	11·5	5·0	15·2	11·5
„ bare fallow	'72	2·4	1·3	0·6	2·1
	'73	2·7	1·3	0·5	2·3
„ grass—Clover, &c. under rotation	'72	11·9	14·1	29·1	14·5
	'73	11·2	13·6	29·1	14·0
„ permanent pasture	'72	42·0	58·1	23·2	40·6
	'73	42·8	59·7	24·0	41·5
Total	—	100·0	100·0	100·0	100·0
Acreage of orchards, or of arable or grass land, used also for fruit trees	1873	143,	3,	2,	148,
Acreage of woods, coppices, and plantations	'73	1,326,	127,	734,	2,187,
Abstract of Live Stock—					
Total number of horses†	1872	963,	118,	177,	1,258,†
	'73	979,	120,	177,	1,276,†
„ cattle	'72	3,902,	603,	1,121,	5,625,
	'73	4,174,	643,	1,148,	5,965,
„ sheep	'72	17,913,	2,867,	7,141,	27,922,
	'73	19,170,	2,967,	7,291,	29,428,
„ pigs	'72	2,348,	238,	186,	2,772,
	'73	2,141,	211,	148,	2,500,
Number to every 100 *Acres under Crops, Fallow, and Grass—*					
Horses†	1872	4·0	4·4	3·9	4·1†
	'73	4·1	4·5	3·9	4·1†
Cattle	'72	16·4	22·9	24·7	18·1
	'73	17·5	24·3	25·2	19·2
Sheep	'72	75·2	108·8	157·4	90·0
	'73	80·2	112·1	159·8	94·6
Pigs	'72	9·9	9·0	4·1	8·9
	'73	9·0	8·0	3·2	8·0
Number of Returns Obtained—					
From occupiers of land	1873	423,	58,	81,	561,
„ owners of live stock only	'73	4,	—	2,	6,

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* Stated exclusively of the small percentages for flax and hops.

† In Great Britain only horses used for agriculture, unbroken horses, and mares kept solely for breeding, are included in the returns. The proportionate number of horses for 100 acres in Great Britain in 1873, would be increased from 4·1 to 7·0 by adding to the number included in the Agricultural Returns 865,000 for the number of licensed horses in Great Britain, and 50,000 for horses exempt from license duty, and belonging to the army at home. In Ireland all descriptions of horses are included in the returns.

Stock, in each Division of the United Kingdom. [000's omitted from the quantities.]

Ireland.‡	Isle of Man.	Channel Islands.		Total for United Kingdom.	Years.	
		Jersey.	Guernsey, &c.			
5,411,	54,	57,	34,	31,628,	1871	Total population
20,820,	145,	29,	20,	77,829,	—	Total area (in statute acres)
						Abstract of Acreage—
15,747,§	89,	18,	12,	46,869,	1872	Under all kinds of crops, bare fallow, and grass
15,704,§	90,	18,	12,	46,927,	'73	
2,091,	29,	3,	2,	11,698,	'72	Under corn crops (including beans and peas)
1,931,	27,	3,	2,	11,423,	'73	
1,474,	12,	6,	3,	5,112,	'72	Under green crops
1,372,	12,	7,	3,	4,971,	'73	
19,	1,	—	—	667,	'72	" bare fallow
13,	1,	—	—	721,	'73	
1,800,	35,	5,	1,	6,354,	'72	" grass—Clover, &c. under rotation
1,837,	31,	5,	1,	6,241,	'73	
10,242,	12,	4,	5,	22,838,	'72	" permanent pasture
10,421,	18,	4,	5,	23,364,	'73	
						*Percentage of Acreage—**
13·3	32·2	18·9	17·2	25·0	1872	Under corn crops (including beans and peas)
12·3	30·5	18·5	17·4	24·3	'73	
9·4	14·0	32·1	28·9	10·9	'72	Under green crops
8·7	13·8	35·3	28·2	10·6	'73	
0·1	0·7	0·8	0·6	1·4	'72	" bare fallow
0·1	0·7	1·5	0·8	1·5	'73	
11·4	39·0	28·8	10·3	13·6	'72	" grass—Clover, &c. under rotation
11·7	34·7	24·6	7·8	13·3	'73	
65·1	14·0	19·4	43·0	48·7	'72	" permanent pasture
66·4	20·3	20·1	45·8	49·8	'73	
100·0	100·0	100·0	100·0	100·0	—	Total
—	—	—	—	—	1873	Acreage of orchards, or of arable or grass land, used also for fruit trees
325,	—	—	—	—	'73	Acreage of woods, coppices, and plantations
						Abstract of Live Stock—
541,	6,	2,	2,	1,808,	1872	Total number of horses†
532,	6,	2,	2,	1,818,	'73	
4,057,	19,	11,	6,	9,719,	'72	" cattle
4,152,	20,	11,	7,	10,154,	'73	
4,262,	62,	—	1,	32,247,	'72	" sheep
4,486,	67,	—	1,	33,982,	'73	
1,385,	7,	8,	6,	4,178,	'72	" pigs
1,044,	5,	7,	7,	3,564,	'73	
						Number to every 100 *Acres under Crops, Fallow, and Grass—*
3·4	6·3	12·3	14·5	3·9	1872	Horses†
3·4	6·4	11·4	15·2	3·9	'73	
25·8	21·5	60·7	53·2	20·7	'72	Cattle
26·4	22·3	58·7	57·0	21·6	'73	
27·1	69·7	2·2	7·7	68·8	'72	Sheep
28·6	74·4	2·1	10·1	72·4	'73	
8·8	7·5	44·0	52·6	8·9	'72	Pigs
6·6	5·3	40·4	57·7	7·6	'73	
						Number of Returns Obtained—
600,	2,	2,	2,	—	1873	From occupiers of land
—	—	—	—	—	'73	" owners of live stock only

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‡ The detailed returns for Ireland will be found in the annual reports prepared by the Registrar-General and laid before Parliament.

§ Including under flax, 122,003 acres in 1872, and 129,432 acres in 1873.

III.—*Acreage under Crops and Grass and Number*

1	2	3	4	5	6	7	8	9	10	11
			Number of Acres under Crops and Grass.						Horses.	Cattle.
				Whereof under						
England. — Counties, Proper.	Population on 3rd April, 1871.	Total Area in Statute Acres.	Total under all kinds of Crops, Bare Fallow, and Grass.	Corn Crops.	Green Crops.	Clover and Artificial and other Grasses under Rotation.	Permanent Pasture, and Grass not broken up in Rotation (exclusive of Heath or Mountain Land).	Percentage of Corn Crops to Total under all kinds of Crops, Bare Fallow, and Grass.	— Number to every 100 Acres under Crops, Bare Fallow, and Grass.	— Number to every 100 Acres under Crops, Bare Fallow, and Grass.
South-Eastern—										
Surrey	1,092,	483,	297,	99,	46,	31,	106,	33·6	4·1	14·7
Kent	848,	1,005,	721,	249,	83,	57,	284,	34·5	3·9	10·5
Sussex	417,	934,	654,	214,	79,	64,	265,	32·7	3·8	15·5
Southampton	545,	1,032,	695,	260,	136,	112,	161,	37·4	3·9	8·7
Berks	196,	450,	370,	150,	59,	40,	112,	40·5	3·8	9·5
Total	3,098,	3,904,	2,737,	972,	403,	304,	928,	35·7	3·9	11·8
South Midland—										
Middlesex	2,540,	181,	114,	19,	12,	6,	76,	16·7	4·6	22·2
Hertford	192,	391,	335,	148,	43,	41,	89,	44·1	3·9	9·1
Buckingham	176,	467,	399,	137,	36,	32,	184,	34·4	4·0	16·8
Oxford	178,	470,	411,	167,	58,	45,	135,	40·7	3·9	12·2
Northampton	244,	630,	554,	184,	44,	38,	270,	33·2	3·6	20·2
Huntingdon	64,	230,	209,	100,	23,	15,	58,	47·9	4·5	12·4
Bedford	146,	296,	256,	118,	33,	21,	74,	45·9	4·1	12·4
Cambridge	187,	525,	479,	262,	80,	46,	75,	54·6	5·2	9·5
Total	3,727,	3,190,	2,757,	1,135,	329,	244,	961,	39·7	4·2	14·3
Eastern—										
Essex	466,	1,055,	815,	409,	102,	79,	177,	50·2	4·8	9·6
Suffolk	349,	950,	757,	381,	119,	86,	143,	50·3	5·3	9·8
Norfolk	439,	1,356,	1,061,	458,	202,	167,	225,	43·2	5·2	12·1
Total	1,254,	3,361,	2,633,	1,248,	423,	332,	545,	47·9	5·1	10·5
South-Western—										
Wilts	257,	859,	737,	223,	107,	83,	307,	30·3	2·9	12·2
Dorset	196,	627,	467,	116,	61,	50,	232,	24·8	3·1	16·1
Devon	601,	1,655,	1,069,	300,	153,	173,	412,	28·1	4·4	19·5
Cornwall	362,	870,	516,	150,	60,	132,	150,	29·1	5·3	28·2
Somerset	464,	1,050,	817,	148,	69,	65,	522,	18·1	3·6	25·2
Total	1,880,	5,061,	3,606,	937,	450,	503,	1,623,	26·1	3·9	20·2
West Midland—										
Gloucester	535,	805,	642,	177,	67,	90,	296,	27·6	3·5	18·1
Hereford	125,	533,	432,	112,	36,	41,	226,	25·9	4·4	17·2
Salop	248,	841,	689,	177,	64,	77,	356,	25·7	3·8	19·9
Stafford	858,	732,	586,	121,	42,	53,	356,	20·7	3·4	23·8
Worcester	339,	472,	391,	125,	32,	35,	182,	32·2	4·4	14·6
Warwick	634,	567,	480,	152,	32,	42,	237,	31·7	3·7	18·7
Total	2,739,	3,950,	3,220,	864,	273,	338,	1,653,	27·3	3·9	18·7

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* For the Irish Statistics,

of Live Stock in 1872. [000's omitted, consequently 3,098, = 3,098,000.]

12	13	14	15	16	17	18	19	20	21	22	23	24
SHEEP. — Number to every 100 Acres under Crops, Bare Fallow, and Grass.	PIGS. — Number to every 100 Acres under Crops, Bare Fallow, and Grass.	Number of Acres Under — Wheat.	Barley or Bere.	Oats.	Beans.	Peas.	Potatoes.	Turnips and Swedes.	Mangold.	Vetches, Lucerne, and any other Crops except Clover and Grass.	Bare Fallow, and Uncropped Arable Land.	ENGLAND. — Counties, Proper.
												South-Eastern
34·7	12·3	45,	17,	25,	4,	8,	4,	20,	8,	10,	12,	Surrey
133·2	9·2	112,	41,	49,	24,	22,	16,	29,	10,	22,	10,	Kent
85·2	6·8	100,	22,	65,	11,	15,	3,	33,	11,	21,	22,	Sussex
86·3	10·8	112,	60,	66,	7,	13,	5,	86,	10,	26,	22,	Southamptn.
78·7	12·1	64,	38,	25,	14,	9,	1,	36,	5,	14,	8,	Berks
83·6	10·2	433,	178,	230,	60,	67,	29,	204,	44,	93,	74,	Total
												South Midland
36·0	13·9	9,	2,	5,	1,	2,	3,	2,	2,	5,	1,	Middlesex
55·0	11·0	65,	43,	24,	10,	5,	2,	24,	5,	8,	14,	Hertford
72·2	10·8	59,	29,	24,	18,	7,	2,	20,	4,	9,	10,	Buckingham
83·0	11·1	65,	53,	23,	18,	8,	2,	38,	5,	11,	6,	Oxford
100·5	6·9	79,	54,	19,	24,	8,	2,	27,	5,	8,	18,	Northamptn.
71·5	11·1	47,	22,	12,	14,	6,	4,	3,	4,	7,	12,	Huntingdon
74·7	13·6	53,	30,	9,	20,	5,	5,	12,	4,	8,	11,	Bedford
65·8	11·2	130,	59,	36,	28,	9,	11,	15,	17,	19,	17,	Cambridge
69·8	11·2	507,	292,	152,	133,	50,	31,	141,	46,	75,	89,	Total
												Eastern—
46·1	13·2	191,	101,	37,	51,	28,	11,	25,	28,	30,	47,	Essex
61·4	17·9	156,	137,	15,	42,	26,	2,	58,	34,	20,	26,	Suffolk
71·9	9·6	207,	188,	28,	20,	9,	5,	141,	40,	10,	8,	Norfolk
59·8	13·6	554,	426,	80,	113,	63,	18,	224,	102,	60,	81,	Total
												South-Western
99·3	9·5	99,	66,	33,	13,	10,	4,	62,	6,	25,	17,	Wilts
106·5	9·3	47,	38,	21,	4,	5,	3,	41,	5,	9,	8,	Dorset
86·4	9·2	128,	81,	86,	1,	3,	19,	80,	27,	9,	31,	Devon
79·1	12·2	53,	54,	43,	—	—	7,	31,	11,	2,	24,	Cornwall
86·8	11·7	73,	34,	19,	16,	5,	10,	35,	11,	10,	12,	Somerset
91·6	10·4	400,	273,	202,	34,	23,	43,	249,	60,	55,	92,	Total
												West Midland
70·6	10·0	94,	41,	16,	18,	8,	7,	43,	4,	13,	13,	Gloucester
82·0	7·3	62,	21,	11,	10,	7,	2,	26,	2,	6,	10,	Hereford
73·5	9·3	90,	49,	26,	5,	7,	5,	51,	4,	3,	14,	Salop
55·0	9·5	56,	28,	28,	5,	4,	7,	27,	4,	4,	13,	Stafford
58·4	11·5	69,	18,	7,	23,	8,	5,	15,	4,	8,	14,	Worcester
79·8	9·4	77,	26,	14,	27,	7,	2,	19,	4,	6,	17,	Warwick
69·9	9·5	448,	183,	102,	88,	41,	28,	181,	22,	40,	81,	Total

see *ante*, Table II, p. 137.

III.—*Acreage under Crops and Grass and Number of Live*

1	2	3	4	5	6	7	8	9	10	11
			Number of Acres under Crops and Grass.							
				Whereof under						
ENGLAND. — Counties, Proper.	Population on 3rd April, 1871.	Total Area in Statute Acres.	Total under all kinds of Crops, Bare Fallow, and Grass.	Corn Crops.	Green Crops.	Clover and Artificial and other Grasses under Rotation.	Permanent Pasture, and Grass not broken up in Rotation (exclusive of Heath or Mountain Land).	Percentage of Corn Crops to Total under all kinds of Crops, Bare Fallow, and Grass.	HORSES.—Number to every 100 Acres under Crops, Bare Fallow, and Grass.	CATTLE.—Number to every 100 Acres under Crops, Bare Fallow, and Grass.
North Midland—										
Leicester	269,	512,	465,	113,	24,	29,	286,	24·2	3·4	28·4
Rutland	22,	95,	84,	27,	8,	6,	41,	31·7	3·3	20·3
Lincoln	437,	1,768,	1,463,	622,	237,	165,	408,	42·5	4·2	13·9
Nottingham	320,	526,	442,	163,	50,	54,	155,	36·8	4·2	17·4
Derby	379,	656,	499,	75,	21,	36,	355,	15·0	3·6	27·5
Total	1,427,	3,557,	2,953,	1,000,	340,	290,	1,245,	30·0	3·7	21·5
North-Western—										
Chester	561,	706,	510,	87,	32,	61,	327,	17·0	3·8	32·0
Lancaster	2,820,	1,208,	742,	103,	51,	74,	510,	13·8	4·3	32·0
Total	3,381,	1,914,	1,252,	190,	83,	135,	837,	15·4	4·0	32·0
York—										
West Riding	1,821,	1,716,	1,167,	245,	90,	92,	709,	21·0	4·0	21·6
East ,,	322,	805,	664,	281,	111,	82,	165,	42·3	5·4	12·1
North ,,	293,	1,362,	816,	224,	77,	75,	403,	27·4	4·6	19·4
Total	2,436,	3,883,	2,647,	750,	278,	249,	1,277,	30·2	4·7	17·7
Northern—										
Durham	685,	648,	408,	99,	33,	51,	199,	24·3	4·0	15·3
Northumberland	387,	1,290,	674,	144,	61,	88,	359,	21·4	2·7	14·5
Cumberland	220,	970,	542,	101,	51,	100,	284,	18·6	3·5	23·7
Westmorland	65,	501,	239,	21,	11,	20,	187,	8·7	3·0	25·7
Total	1,357,	3,409,	1,863,	365,	156,	259,	1,029,	18·3	3·3	19·8
Total of England	21,299,	32,229,	23,668,	7,461,	2,735,	2,654,	10,098,	31·4	4·1	17·5
Wales—										
Monmouth	196,	368,	226,	41,	14,	24,	140,	18·2	4·4	18·7
South Wales	764,	2,727,	1,564,	304,	72,	189,	980,	19·2	4·7	21·7
North ,,	453,	1,995,	1,083,	233,	61,	172,	602,	21·4	4·3	26·9
Total of Wales	1,413,	5,090,	2,873,	578,	147,	385,	1,722,	20·3	4·5	24·3
Total of Scotland	3,360,	19,496,	4,562,	1,420,	694,	1,328,	1,096,	31·1	3·9	25·2
Total of Great Britain	26,072,	56,815,	31,103,	9,459,	3,576,	4,367,	12,916,	30·4	4·1	19·2

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* For the Irish Statistics,

Stock in 1872—*Contd.* [000's omitted, consequently 1,427, = 1,427,000.]

12	13	14	15	16	17	18	19	20	21	22	23	24
SHEEP. — Number to every 100 Acres under Crops, Bare Fallow, and Grass.	PIGS. — Number to every 100 Acres under Crops, Bare Fallow, and Grass.	Number of Acres Under										ENGLAND. — Counties, Prop.
		Wheat.	Barley or Bere.	Oats.	Beans.	Peas.	Potatoes.	Turnips and Swedes.	Mangold.	Vetches, Lucerne, and any other Crops except Clover and Grass.	Bare Fallow, and Uncropped Arable Land.	
												North Midland
95·9	6·5	45,	31,	22,	10,	4,	2,	14,	5,	3,	13,	Leicester
119·0	5·2	10,	11,	4,	1,	1,	—	6,	—	1,	3,	Rutland
107·0	7·6	295,	169,	99,	39,	19,	38,	137,	18,	24,	29,	Lincoln
65·9	6·7	74,	47,	20,	13,	8,	5,	35,	4,	5,	19,	Nottingham
52·8	8·0	30,	14,	28,	2,	2,	3,	11,	1,	3,	12,	Derby
108·1	6·8	454,	272,	173,	65,	34,	48,	203,	28,	36,	76,	Total
												North-Western
24·2	12·1	31,	4,	45,	5,	—	19,	9,	2,	2,	4,	Chester
46·8	5·2	35,	9,	49,	7,	—	33,	11,	2,	3,	5,	Lancaster
35·5	8·6	66,	13,	94,	12,	—	52,	20,	4,	5,	9,	Total
												York—
67·0	5·6	95,	73,	58,	13,	6,	19,	57,	3,	9,	28,	West Riding
79·5	7·6	112,	63,	75,	15,	14,	8,	78,	4,	11,	24,	East ,,
89·9	6·4	69,	71,	66,	12,	5,	7,	59,	2,	5,	36,	North ,,
78·8	6·5	276,	207,	199,	40,	25,	34,	194,	9,	25,	88,	Total
												Northern—
55·1	3·0	38,	18,	38,	3,	2,	6,	22,	—	4,	26,	Durham
138·7	2·3	34,	39,	63,	5,	3,	5,	51,	—	4,	21,	Northumberland
103·7	5·2	23,	11,	65,	1	—	11,	35,	2,	1	6,	Cumberland
151·1	2·1	2,	3,	16,	—	—	2,	8,	—	—	1,	Westmorlnd.
112·2	3·2	97,	71,	182,	9,	5,	24,	116,	2,	9,	54,	Total
80·2	9·0	3,233,	1,915,	1,412,	553,	309,	307,	1,532,	316,	398,	644,	Total of England
												Wales—
91·7	7·3	20,	11,	7,	—	2,	2,	9,	1,	2,	6,	Monmouth
83·5	6·5	60,	104,	137,	—	2,	23,	41,	4,	4,	18,	South Wales
140·7	9·5	57,	60,	108,	4,	3,	22,	30,	3,	5,	17,	North ,,
112·1	8·0	137,	175,	252,	4,	7,	47,	80,	8,	11,	41,	Total of Wales
159·8	3·2	120,	246,	1,012,	29,	2,	161,	510,	2,	15,	22,	Total of Scotland
94·6	8·0	3,490,	2,336,	2,676,	586,	318,	515,	2,122,	326,	424,	707,	Total of Gt. Britain

see Table II, p. 137.

IMPORTS.—(United Kingdom.)—**Whole Years, 1873-72-71-70-69.**—*Computed Real Value (Ex-duty), at Port of Entry (and therefore including Freight and Importer's Profit), of Articles of Foreign and Colonial Merchandise Imported into the United Kingdom.*

(Whole Years.) [000's omitted.] FOREIGN ARTICLES IMPORTED.		1873.	1872.	1871.	1870.	1869.
		£	£	£	£	£
RAW MATLS.—*Textile, &c.*	Cotton Wool	54,887,	53,617,	55,767,	53,398,	56,852,
	Wool (Sheep's) ..	20,699,	19,862,	19,565,	16,101,	14,940,
	Silk*....................	15,519,	14,501,	16,065,	22,954,	18,289,
	Flax	5,295,	4,998,	5,791,	5,979,	4,179,
	Hemp	2,319,	6,266,	6,480,	4,424,	4,122,
	Indigo	2,438,	2,479,	907,	2,721,	3,083,
		101,157,	101,723,	104,575,	105,577,	101,465,
" " *Various.*	Hides	6,673,	6,733,	5,001,	4,584,	3,299,
	Oils	5,556,	4,649,	5,093,	4,259,	4,340,
	Metals	10,991,	9,207,	9,463,	5,370,	5,336,
	Tallow	3,133,	2,835,	3,112,	3,292,	2,770,
	Timber................	18,665,	15,753,	12,081,	11,722,	10,109,
		45,018,	37,177,	34,749,	29,227,	25,854,
" " *Agrcltl.*	Guano	2,112,	1,183,	1,994,	3,477,	2,641,
	Seeds	7,129,	7,278,	8,106,	4,016,	3,647,
		9,241,	8,461,	10,100,	7,493,	6,288,
TROPICAL, &c., PRODUCE.	Tea	11,539,	12,982,	11,658,	10,095,	10,319,
	Coffee	7,319,	5,295,	5,407,	4,943,	4,927,
	Sugar & Molasses	21,437,	18,490,	18,572,	17,549,	15,928,
	Tobacco	4,003,	2,801,	3,705,	2,153,	2,250,
	Rice	3,238,	3,474,	2,321,	2,156,	2,837,
	Fruits	3,051,	3,916,	3,247,	2,157,	2,804,
	Wines	8,304,	7,722,	7,070,	4,817,	5,266,
	Spirits	3,297,	2,192,	2,896,	3,109,	2,012,
		62,188,	56,872,	54,876,	46,979,	46,343,
FOOD	Grain and Meal.	51,521,	50,987,	42,404,	34,197,	37,252,
	Provisions	23,812,	18,912,	18,219,	15,856,	16,203,
		75,333,	69,899,	60,623,	50,053,	53,455,
Remainder of Enumerated Articles		42,144,	44,283,	36,956,	16,687,	17,212,
TOTAL ENUMERATED IMPORTS		335,081,	318,415,	301,879,	256,016,	250,617,
Add for UNENUMERATED IMPORTS (say)		35,300,	34,960,	24,955,	64,004,	62,654,
TOTAL IMPORTS		370,381,	353,375,	326,834,	320,020,	313,271,

* "Silk," inclusive of manufactured silk, "not made up."

EXPORTS.—(United Kingdom.)—**Whole Years, 1873-72-71-70-69.**—*Declared Real Value, at Port of Shipment, of Articles of* BRITISH *and* IRISH *Produce and Manufactures Exported from United Kingdom.*

(Whole Years.) [000's omitted.] BRITISH PRODUCE, &c., EXPORTED.		1873.	1872.	1871.	1870.	1869.
		£	£	£	£	£
MANFRS.—*Textile.*	Cotton Manufactures..	61,447,	63,419,	57,636,	56,727,	53,002,
	,, Yarn	15,876,	16,710,	15,055,	14,683,	14,158,
	Woollen Manufactures	25,279,	32,384,	27,185,	21,651,	22,625,
	,, Yarn	5,404,	6,110,	6,102,	5,176,	5,858,
	Silk Manufactures........	1,876,	2,189,	2,054,	2,441,	2,049,
	,, Yarn	1,668,	1,895,	1,270,	160,	213,
	Linen Manufactures	7,295,	8,248,	7,521,	7,378,	6,798,
	,, Yarn	1,976,	2,142,	2,220,	2,234,	2,329,
		120,821,	133,097,	119,043,	110,450,	107,032,
,, *Sewed.*	Apparel	3,434,	3,095,	2,699,	2,204,	2,405,
	Haberdy. and Mllnry.	6,598,	6,629,	5,920,	4,814,	4,583,
		10,032,	9,724,	8,619,	7,018,	6,988,
METALS, &c.	Hardware	4,938,	5,089,	4,022,	4,513,	4,413,
	Machinery	9,994,	8,199,	5,942,	5,287,	5,102,
	Iron	37,780,	36,061,	26,149,	21,081,	19,519,
	Copper and Brass........	3,821,	3,626,	3,268,	3,062,	3,586,
	Lead and Tin	1,548,	1,760,	1,623,	4,288,	4,186,
	Coals and Culm	13,206,	10,444,	6,267,	5,507,	5,069,
		71,287,	65,179,	47,271,	43,738,	41,875,
Ceramic Manufcts.	Earthenware and Glass	3,408,	3,113,	2,610,	2,524,	2,664,
Indigenous Mnfrs. and Products.	Beer and Ale................	2,420,	2,085,	1,871,	1,878,	1,896,
	Butter	266,	307,	328,	316,	270,
	Cheese	81,	83,	96,	110,	110,
	Candles	221,	223,	181,	116,	161,
	Salt..............................	789,	529,	468,	381,	431,
	Spirits	212,	224,	201,	179,	209,
	Soda	2,931,	—	1,753,	1,486,	1,379,
		6,920,	3,451,	4,898,	4,466,	4,456,
Various Manufcts.	Books, Printed	913,	883,	723,	630,	675,
	Furniture	—	—	—	222,	243,
	Leather Manufactures	3,417,	3,664,	3,662,	2,622,	2,631,
	Soap	241,	304,	236,	219,	216,
	Plate and Watches	278,	232,	192,	552,	507,
	Stationery	673,	661,	532,	488,	497,
		5,522,	5,744,	5,345,	4,733,	4,769,
Remainder of Enumerated Articles		19,433,	19,855,	18,149,	15,534,	12,335,
Unenumerated Articles..............................		17,650,	15,798,	13,384,	11,178,	9,926,
TOTAL EXPORTS....................		255,073,	255,961,	219,319,	199,641,	190,045,

SHIPPING.—(United Kingdom.)—*Account of Tonnage of Vessels Entered and Cleared with Cargoes, from and to Various Countries, during the* **Twelve Months** *ended December*, 1873-72-71.

Countries from whence Entered and to which Cleared.	Total British and Foreign.					
	1873.		1872.		1871.	
	Entered.	Cleared.	Entered.	Cleared.	Entered.	Cleared.
FOREIGN COUNTRIES.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Russia Northern ports	1,225,967	714,998	1,021,383	651,606	1,083,583	777,832
Russia Southern „	374,773	140,386	623,290	194,238	556,946	215,428
Sweden	1,139,312	564,527	1,092,202	518,847	970,858	415,179
Norway	868,147	328,641	792,772	305,209	754,083	297,933
Denmark..................................	156,698	513,887	188,956	504,100	139,198	530,636
Germany..................................	1,639,472	2,112,711	1,607,559	2,406,432	1,497,548	2,420,750
Holland	842,800	1,103,986	834,549	1,098,925	743,819	1,026,607
Belgium	822,867	939,261	786,158	789,585	700,141	759,353
France..................................	1,639,472	2,552,079	1,700,139	2,382,874	1,310,784	2,500,822
Spain	921,501	544,143	840,718	570,023	644,049	540,887
Portugal	319,094	301,604	260,926	258,275	258,928	226,044
Italy..................................	224,569	719,402	246,243	765,170	218,637	703,659
Austrian territories	25,980	103,213	40,832	154,222	65,205	174,808
Greece..................................	108,831	76,652	110,131	61,549	78,708	61,518
Turkey (including Wallachia and Moldavia)	317,516	317,350	262,504	369,756	343,202	337,503
Egypt	370,547	519,300	424,698	539,151	380,967	557,630
United States of America	3,017,868	2,340,100	2,478,666	2,363,793	2,555,392	2,509,814
Mexico, Foreign West Indies, and Central America	315,350	435,483	311,212	432,038	137,864	350,084
Brazil	229,349	490,793	247,720	423,092	199,008	403,085
Peru	273,525	163,004	151,784	270,742	176,206	171,897
Chili	84,045	247,567	96,775	249,459	66,753	144,922
China	119,529	19,512	132,895	48,285	108,240	67,674
Other countries	525,558	592,741	486,337	556,080	494,582	586,744
Total, Foreign Countries	15,562,770	15,841,340	14,738,449	15,913,451	13,484,701	15,780,809
BRITISH POSSESSIONS.						
North American Colonies	1,326,235	603,274	1,291,136	738,801	1,170,175	754,379
East Indies, including Ceylon, Singapore, and Mauritius	983,968	1,175,067	1,018,948	1,090,105	927,208	1,180,235
Australia and New Zealand	267,292	467,582	225,716	390,495	228,194	304,756
West Indies	211,682	162,060	210,505	167,174	236,888	179,070
Channel Islands....................	236,513	161,651	239,463	179,739	236,434	172,409
Other possessions	203,503	731,693	181,723	768,587	171,742	675,797
Total, British Possessions	3,229,193	3,301,327	3,167,491	3,334,901	2,970,641	3,266,646
TOTAL FOREIGN COUNTRIES AND BRITISH POSSESSIONS.						
Twelve months ended December 1873........	18,791,963	19,142,667	—	—	—	—
Twelve months ended December '72........	—	—	17,905,940	19,248,352	—	—
Twelve months ended December '71........	—	—	—	—	16,455,342	19,047,45

GOLD AND SILVER BULLION AND SPECIE.—IMPORTED AND EXPORTED.—(United Kingdom.)—*Computed Real Value for the* **Whole Years, 1873-72-71.**

[000's omitted.]

(Whole Years.)	1873.		1872.		1871.	
	Gold.	*Silver.*	Gold.	*Silver.*	Gold.	*Silver.*
Imported from:—	£	£	£	£	£	£
Australia	9,444,	27,	5,983,	31,	6,899,	21,
So. Amca. and W. Indies	3,123,	3,058,	813,	2,800,	1,172,	3,403,
United States and Cal.	3,174,	5,992,	8,148,	4,618,	6,493,	5,674,
	15,741,	9,077,	14,944,	7,449,	14,564,	9,098,
France	1,509,	1,342,	2,124,	923,	3,702,	1,089,
Germany, Holl. & Belg.	253,	527,	772,	2,517,	830,	423,
Prtgl., Spain, and Gbrltr.	138,	71,	68,	60,	58,	55,
Mlta., Trky., and Egypt	2,160,	34,	103,	54,	221,	103,
China	129,	500,	—	62,	1,	3,068,
West Coast of Africa	78,	7,	109,	7,	137,	5,
All other Countries	454,	1,435,	217,	95,	2,100,	2,686,
Totals Imported	20,462,	12,993,	18,337,	11,167,	21,613,	16,527,
Exported to:—						
France	632,	3,564,	1,040,	871,	1,569,	1,240,
Germany, Holl. & Belg.	7,696,	1,479,	8,560,	1,773,	2,069,	3,032,
Prtgl., Spain, and Gbrltr.	3,243,	488,	1,674,	1,188,	1,907,	1,070,
	11,571,	5,531,	11,274,	3,832,	5,545,	5,342,
Ind. and China (viâ Egypt)	1,178,	2,795,	1,006,	5,678,	1,406,	3,041,
Danish West Indies	—	—	—	—	—	—
United States	2,417,	2,	—	—	114,	1,
South Africa	217,	45,	1,390,	111,	1,143,	59,
Mauritius	—	—	—	—	—	—
Brazil	410,	—	397,	—	2,121,	—
All other Countries	3,278,	1,455,	5,682,	966,	10,369,	4,619,
Totals Exported	19,071,	9,828,	19,749,	10,587,	20,698,	13,062,
Excess of *Imports*	1,391,	3,165,	—	580,	915,	3,465,
,, Exports	—	—	1,412,	—	—	—

REVENUE.—(UNITED KINGDOM.)—31ST DECEMBER, 1873-72-71-70.

Net Produce in QUARTERS *and* YEARS *ended* 31*st* DEC., 1873-72-71-70.

[000's omitted.]

QUARTERS, ended 31st Dec.	1873.	1872.	1873.		Corresponding Quarters.	
			Less.	More.	1871.	1870.
	£	£	£	£	£	£
Customs	5,579,	5,739,	160,	—	5,614,	5,403,
Excise	6,862,	6,409,	—	453,	5,804,	5,598,
Stamps	2,606,	2,549,	—	57,	2,438,	2,213,
Taxes	24,	26,	2,	—	36,	22,
Post Office	1,240,	1,180,	—	60,	1,158,	1,200,
Telegraph Service	291,	260,	—	31,	160,	160,
	16,602,	16,163,	162,	601,	15,210,	14,596,
Property Tax	271,	373,	102,	—	539,	338,
	16,873,	16,536,	264,	601,	15,749,	14,934,
Crown Lands	135,	120,	—	15,	116,	115,
Miscellaneous	757,	825,	68,	—	989,	880,
Totals	17,765,	17,481,	332,	616,	16,854,	15,929,
			NET INCR. £283,678			

YEARS, ended 31st Dec.	1873.	1872.	1873.		Corresponding Years.	
			Less.	More.	1871.	1870.
	£	£	£	£	£	£
Customs	20,740,	20,751,	11,	—	20,236,	20,205,
Excise	26,562,	25,324,	—	1,238,	23,238,	22,437,
Stamps	10,472,	9,872,	—	600,	9,644,	9,020,
Taxes	2,357,	2,359,	2,	—	2,338,	2,971,
Post Office	5,532,	4,860,	—	672,	4,690,	4,650,
Telegraph Service	1,131,	905,	—	226,	685,	500,
	66,794,	64,071,	13,	2,736,	60,831,	59,783,
Property Tax	6,831,	9,636,	2,805,	—	6,688,	7,460,
	73,625,	73,707,	2,818,	2,736,	67,519,	67,243,
Crown Lands	390,	375,	—	15,	385,	379,
Miscellaneous	3,698,	3,607,	—	91,	4,305,	3,647,
Totals	77,713,	77,689,	2,818,	2,842,	72,209,	71,269,
			NET INCR. £23,757			

REVENUE.—UNITED KINGDOM.—QUARTER ENDED 31ST DEC., 1873:—

An Account showing the REVENUE *and other* RECEIPTS *in the* QUARTER *ended* 31*st December*, 1873; *the* ISSUES *out of the same, and the Charges on the Consolidated Fund at that Date, and the Surplus or Deficiency of the Balance in the Exchequer on the* 31*st of December*, 1873, *in respect of such Charges.*

Received:—

		£
Income received, as shown in Account I		17,765,040
Amount received in Repayment of Advances for Public Works, &c.		689,511
,, for Greenwich Hospital		28,580
Total		£18,483,131
Excess of the Sums charged on the Consolidated Fund on the 31st of December, 1873, payable in March quarter, 1874, above the Balance in the Exchequer at that date, viz.:—		
Excess of Charge in Great Britain	£5,593,976	
Surplus overcharge in Ireland	430,965	
Net deficiency		*5,163,011
		£23,646,142

Paid:—

		£
Net Deficiency of the Balance in the Exchequer to meet the Charge on the 30th of September, 1873, as per last Account	£2,074,830	
Less—Amount of Sinking Fund applied in Repayment of Advances to meet the said Deficiency	300,000	
		1,774,830
Amount applied out of the Income to *Supply Services*		11,234,148
,, advanced for Greenwich Hospital		28,580
Charge of the *Consolidated Fund* on the 31st of December, 1873, viz.:—		
Interest of the Permanent Debt	£6,078,159	
Terminable Annuities	2,251,840	
Principal of Exchequer Bills	165,900	
Interest ,,	40,368	
,, of Deficiency Advances	1,115	
The Civil List	101,569	
Other Charges on Consolidated Fund	304,135	
Advances for Public Works, &c.	1,108,806	
Sinking Fund	556,692	
		10,608,584
Total		23,646,142

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* Charge on 31st of December, 1873 (as above)	£10,608,584
Paid out of growing produce in December quarter, 1873	1,461,939
Portion of the Charge payable in March quarter, 1874	9,146,645
To meet which there was in the Exchequer on the 31st of December, 1873	3,983,634
Net deficiency as above	5,163,011

BRITISH CORN.—*Gazette Average Prices* (ENGLAND AND WALES), *Fourth Quarter of* 1873.

[This Table is communicated by the Statistical and Corn Department, Board of Trade.]

Weeks ended on Saturday.	Weekly Average. (Per Impl. Quarter.)					
	Wheat.		Barley.		Oats.	
1873.	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
October 4	62	3	45	–	25	9
,, 11	61	–	44	3	25	3
,, 18	60	2	43	1	24	2
,, 25	60	1	42	10	25	10
Average for October	60	11	43	8	25	4
November 1	59	10	43	1	25	–
,, 8	60	9	43	9	24	10
,, 15	61	3	44	8	25	8
,, 22	61	1	44	5	25	9
,, 29	61	–	44	5	25	8
Average for November	60	9	44	1	25	5
December 6	61	6	45	–	26	1
,, 13	61	11	45	–	26	3
,, 20	61	7	44	7	26	3
,, 27	61	8	44	6	26	–
Average for December	61	8	44	9	26	1
Average for the quarter	61	1	44	3	25	7
,, year	58	8	40	5	25	5

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), *for Wednesday in each Week, during the* FOURTH QUARTER (*October—December*) *of* 1873.

[0,000's omitted.]

1	2	3	4	5	6	7	
ISSUE DEPARTMENT.					COLLATERAL COLUMNS.		
Liabilities.	DATES.	Assets.			Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.	
Notes Issued.	(Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.			
£ Mlns.	1873.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	1873.	Per cnt.
36,14	Oct. 1	11,02	3,98	21,14	26,68	1 Oct.	5
35,40	„ 8	11,02	3,98	20,40	26,90		
34,21	„ 15	11,02	3,98	19,21	26,86	15 „	6
33,83	„ 22	11,02	3,98	18,83	26,32	22 „	7
33,76	„ 29	11,02	3,98	18,76	26,00		
33,76	Nov. 5	11,77	3,98	18,76	26,31	5 Nov.	9
33,59	„ 12	11,02	3,98	18,59	25,92		
34,13	„ 19	11,02	3,98	19,13	25,27	19 „	8
35,17	„ 26	11,02	3,98	20,17	24,79	26 „	6
35,95	Dec. 3	11,02	3,98	20,95	25,22	3 Dec.	5
36,55	„ 10	11,02	3,98	21,55	24,83	10 „	4½
36,86	„ 17	11,02	3,98	21,86	24,73		
36,61	„ 24	11,02	3,98	21,61	25,42		
37,00	„ 31	11,02	3,98	22,00	25,81		

BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18
Liabilities.					DATES.	Assets.				Totals of Liabilities and Assets.
Capital and Rest.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.		
Capital.	Rest.	Public.	Private.		(Wdnsdys.)	Government.	Other.	Notes.	Gold and Silver Coin.	
£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	1873.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
14,55	3,85	6,92	22,12	,45	Oct. 1	13,40	24,54	9,46	,50	47,89
14,55	3,11	4,63	22,96	,48	„ 8	13,89	22,72	8,50	,62	45,73
14,55	3,14	4,32	20,43	,45	„ 15	13,23	21,80	7,35	,51	42,89
14,55	3,15	3,88	19,10	,47	„ 22	12,50	20,55	7,51	,60	41,15
14,55	3,16	4,25	18,28	,45	„ 29	11,94	20,30	7,76	,69	40,69
14,55	3,16	3,93	18,43	,48	Nov. 5	11,94	20,70	7,45	,62	40,54
14,55	3,18	4,05	20,04	,47	„ 12	11,77	22,11	7,67	,75	42,30
14,55	3,19	4,32	18,69	,43	„ 19	12,10	19,38	8,86	,84	41,18
14,55	3,15	5,18	18,78	,40	„ 26	12,54	18,28	10,38	,87	42,08
14,55	3,14	6,27	18,55	,42	Dec. 3	13,28	18,20	10,73	,72	42,92
14,55	3,14	6,81	18,44	,43	„ 10	13,29	17,62	11,72	,74	43,37
14,55	3,15	8,05	17,07	,40	„ 17	13,29	17,18	12,13	,62	43,23
14,55	3,16	8,37	17,33	,37	„ 24	13,31	18,76	11,19	,51	43,77
14,55	3,17	8,85	21,06	,33	„ 31	13,30	22,85	11,19	,62	47,96

LONDON CLEARING; CIRCULATION, PRIVATE AND PROVINCIAL.

The London Clearing, and the Average Amount of Promissory Notes in Circulation in England *and* Wales *on Saturday in each Week during the* Fourth Quarter (*October —December*) *of* 1873; *and in* Scotland *and* Ireland, *at the Four Dates, as under.*

[0,000's omitted.]

England and Wales.					Scotland.				Ireland.		
Dates. *Saturday.*	*London:* Cleared in each Week ended *Wednesday.**	Private Banks. (Fixed Issues, 3,93).	Joint Stock Banks. (Fixed Issues, 2,74).	Total. (Fixed Issues, 6,66).	Weeks ended	£5 and upwards.	Under £5.	Total. (Fixed Issues, 2,75).	£5 and upwards.	Under £5.	Total. (Fixed Issues, 6,35).
1873.	£	£	£	£	1873.	£	£	£	£	£	£
Oct. 4	125,59	2,80	2,50	5,30	Oct. 4	1,90	3,85	5,75	3,83	3,10	6,93
„ 11	110,62	2,90	2,50	5,40							
„ 18	110,07	2,90	2,54	5,44							
„ 25	137,85	2,84	2,49	5,33							
Nov. 1	93,37	2,82	2,44	5,26	Nov. 1	1,96	3,93	5,89	4,23	3,41	7,64
„ 8	146,55	2,82	2,45	5,27							
„ 15	99,76	2,78	2,44	5,22							
„ 22	138,20	2,81	2,43	5,24							
„ 29	88,50	2,72	2,39	5,11	„ 29	2,18	4,21	6,39	4,09	3,39	7,48
Dec. 6	143,88	2,69	2,37	5,06							
„ 13	105,55	2,67	2,36	5,03							
„ 20	135,48	2,67	2,36	5,03							
„ 27	102,61	2,71	2,36	5,07	Dec. 27	1,94	3,99	5,93	3,87	3,24	7,11

* The Wednesdays *preceding* the Saturdays.

FOREIGN EXCHANGES.—*Quotations as under,* London *on Paris, Hamburg and Calcutta;—and New York, Calcutta, Hong Kong and Sydney, on* London.

1	2	3	4	5	6	7	8	9
				Calcutta.				
Dates.	London on Paris. 3 m.d.	London on Hamburg. 3 m.d.	New York. 60 d. s.	India Council. 60 d. s.	At Calcutta on London. 6 m. d.	Hong Kong. 6 m. d.	Sydney. 30 d. s.	Standard *Silver* in bars in London pr. oz.
1873.			per. cnt.	*d.*	*d.*	*d.*	per cnt.	*d.*
Oct. 4	25·75	20·52	107	22¼	22⅞	51⅝	½ dis.	59
„ 18	25·72½	20·56	106¼	22⅛	22¾	51½	„	$58\frac{13}{16}$
Nov. 1	25·85	20·68	106½	21⅝	22⅜	50½	—	58½
„ 22	25·85	20·63	107	21¾	22¼	50⅝	½ dis.	57⅞
Dec. 6	25·65	20·57	108	21¾	22¼	50¾	—	58
„ 20	25·60	20·56	109	$21\frac{13}{16}$	22⅜	—	—	$58\frac{1}{16}$

Additions to the Library During the Quarter.

Donations.	By whom Presented.
A case of books, &c., comprising nearly all the Vital Statistics published in the United States during the year 1872-73	Dr. Edward Jarvis, Boston, United States
The "Iliad of Homer," translated by J. G. Cordery	The Translator
The "Ninth Census of the United States, 1870," viz.— Vol. 1. "Population and Social Statistics" „ 2. "Vital Statistics" „ 3. "Industry and Wealth"	Francis A. Walker, Esq., Superintendent United States Census
Papers regarding the Rural Agency Employed in taking the Bengal Census of 1872	India Office
"Catalogues of New Zealand Birds and Fishes," and "Reports of the New Zealand Geological Explorations and Colonial Museum"	A. Hamilton, Esq.
"Patents and Patentees of Victoria," vol. vi, Index to 1871. By W. H. Archer	The Author
"Statistics of Egypt," year 1873	The Minister of the Interior, Cairo
"Financial Reform Almanacks" for 1873 and 1874	Financial Reform Association
"Dos Bancos Portuguezes." By Luciano Cordeiro	The Author
"Vital Statistics of New South Wales for 1873"	The Registrar-General, New South Wales
"Proceedings of the Literary and Philosophical Society of Liverpool," Session 1872-73	The Society.
"A Sketch of the Productive Forces of Russia," and four volumes of the "Statistical Year Book of the Russian Finance Ministry." By A. de Bouschen	The Author
"Defects in the Criminal Administration and Penal Legislation of Great Britain and Ireland"	William Tallack, Esq.
"Statistique de la France. Résultats Généraux du Dénombrement de 1872"	The French Minister of the Interior
"Statistics of the Colony of Victoria for 1872." Parts 1 to 5	The Agent-General of Victoria
"Statistics of the Colony of Victoria for 1872." Part 6, Production. "Census of Victoria, 1871," Part 9	W. H. Archer, Esq.
"Journal of the Royal Saxon Statistical Bureau," January—September, 1873	The Bureau
"Mineral Statistics of the United Kingdom for the Year 1872." By Robert Hunt	The Author
"Oesterreichs Commercielle und Industrielle Entwicklung in den letzten yahrzehenten"	M. W. Brachelli, Vienna
"Tithe Commutation; Table showing the Value of Tithe Rent Charges for the Year 1873." By George Taylor	F. C. Ryan, Esq., Tithe Commission
"Hivatalos Statistikai Közlemények." Sixth year, vols. ii, iii, and vi	Royal Hungarian Bureau of Statistics
"Public Health; a Popular Introduction to Sanitary Science." By William A. Guy, M.B., F.R.S., &c. A complete edition, also Part 2	The Author
"Ninth Report, Massachusetts Board of State Charities"	The Board

Donations—Contd.

Donations.	By whom Presented.
"Fourth Report Massachusetts Bureau of the Statistics of Labor"	The Bureau
"Memoirs of the American Academy of Arts and Sciences of Boston." Vol. ix, Part 2	The Academy
"Nineteenth and Twentieth Reports of Massachusetts Board of Agriculture"	Harvard College Library
"Thirty-sixth Report Massachusetts Board of Education"	
"Ninth Report Massachusetts Board of State Charities"	
"The Harvard University Catalogue, 1872-73"	
"Report of United States Chief Signal Officer, 1872"	Smithsonian Institution
"Report of Smithsonian Institution, 1871"	
"Smithsonian Miscellaneous Collections," vol. x	
"The Clerk's Manual and Croswell's Manual"	J. O'Donnell, Esq., Albany
"Taxation: Past, Present, and Future." By W. L. Sargant	The Author
"L'Italia Economica, nel 1873." 2 vols.	The Italian Minister of Agriculture, &c.
"Lectures Delivered at the Royal United Service Institution, 1873." Published separately	The Institution
"The Reports of the Exploration Committee of the Royal Society of Victoria"	The Hon. Dr. D. E. Wilkie, Melbourne
"The Census of Ireland, 1871." Part 2, vol. i	The Census Commissioners
"Index to the Reports of the Committee on East India Finance"	The India Office
"Report on Savings in Ireland." By Dr. W. Neilson Hancock	The Author
"The Census of England and Wales, 1871," 4 volumes	The Census Commissioners
"Subject-Index to the New York State Library, 1872"	New York State Library
"Fifty-fourth and Fifty-fifth Annual Reports of the New York State Library"	
"Meteorological Observations in the State of New York, 1850-63"	
"Legislative Manual of New York, 1871"	
"New York Civil List, 1869"	
"Impôt sur les Chèques." A speech of M. Wolowski in the Assembly	M. Wolowski
"The Life of John Howard." By the Rev. J. Field, M.A. 8vo. 1850	Dr. William A. Guy, F.R.S.
The Current Numbers of the following Periodicals—	
"The Athenæum"	The Editor
"Revue Bibliographique Universelle"	,,
"Journal of the Franklin Institute"	The Institute
"The Bankers' Magazine"	The Editor
"The Food Journal"	,,
"Proceedings of the Social Science Association"	The Association
"Journal of the Institute of Actuaries"	The Institute
"The Indian Economist"	Robert Knight, Esq.
"Transactions of the Institution of Surveyors"	The Institution
"Revista de Portugal e Brazil"	The Directors
"Proceedings of the Royal Geographical Society"	The Society
"Proceedings of the Asiatic Society of Bengal"	,,
"Journal of the Asiatic Society of Bengal"	,,

Purchased.

"Journal des Economistes," for the quarter.

"Annales d'Hygiène Publique," „

"Judicial Statistics for 1872."

"Statesman's Year Book for 1874."

"British Almanac and Companion for 1874."

"Almanach de Gotha for 1874."

"Memoirs of John Howard." By Thomas Taylor, 1836.

"The State of the Prisons in England and Wales, with Preliminary Observations and an Account of some Foreign Prisons and Hospitals." By John Howard, F.R.S., 3rd edition, 1784. 4to.

"On the Impending Bengal Famine." By Sir Bartle Frere, G.C.S.I., K.C.B.

Vol. XXXVII.] [Part II.

JOURNAL OF THE STATISTICAL SOCIETY,

JUNE, 1874.

On the Reconstruction *of the* Income *and* Property Tax. *By* Professor Leone Levi, F.S.A., F.R.G.S., F.S.S., *&c.*, *&c.*

[Read before the Statistical Society, 21st April, 1874.]

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I.—*Relation of the Income Tax to Taxation and Revenue.*

Ever since Sir Robert Peel, in a moment of financial perplexity, hit upon the happy expedient of appealing to the wealthier classes of the people to contribute, in a direct manner, such a sum as might enable him to establish a proper equilibrium between the revenue and expenditure, and to introduce wholesome and radical reforms in the customs and excise revenue, every Chancellor of the Exchequer has clung to the income tax as the main prop of his budget. In peace or in war, with a handsome surplus in hand, or with a deficiency to meet, the tax has always been found most useful, and notwithstanding all the grumbling and objections urged against it, at its first imposition, and at every subsequent revival of the same, the income tax still brings a handsome contingent to the national revenue. Table I in the Appendix shows that for eleven years consecutively, from 1844 to 1854, five millions and a-half a-year were derived from the income tax, that being equal to 10 per cent. of the whole taxation of the country. When the Crimean war came, from 1855 to 1857, first 10 millions, and then 15 and 16 millions a-year were drawn from the same source. And when peace brought back the national finances to their ordinary level, the income tax still continued a fruitful source of revenue, the increasing resources of the people causing a much smaller rate in the pound, to produce a revenue of some 7 to 10 millions a-year. In 1844, the amount of the tax assessed was at the rate of 800,000*l.* for a penny. In 1854 at the rate of 1,000,000*l.*; in 1864, of 1,300,000*l.*; and in 1873 of 1,800,000*l.* to the penny. Taking the whole of the thirty years for which the income tax has been in operation, 12 per cent. of the whole amount of taxation, and about 11 per cent. of the total revenue came from the income tax. The taxation of the country is now very much simplified. In 1873, 70 per cent. of the whole amount was derived from six sources, viz., spirits, malt and tobacco, sugar and tea, and the income tax. But none of these branches of taxation is less objectionable in relation to the production of wealth, expensiveness of collection, or uncertainty of result, than the income tax. And I do not wonder, if, with a perfect machinery at work for the assessment, and with the national mind accustomed to the burden, the Chancellor of the Exchequer is unwilling to relinquish so good a contributor to his ways and means.

II.—*Place of the Income Tax in the Financial System.*

In the general system of finance in the United Kingdom, the income tax holds a subordinate and supplemental place. It is not to the operation of the income tax, that we must look for any balance of burden between rich and poor, or for the application of the principle that every one should bear his quota of the national expenditure in proportion to his ability. The equalisation of burden is obtained rather by the incidence of all the branches of taxation, taken collectively, than by the operation of any single tax. If the taxes on real property mainly fall on the rich, the customs and excise fall mainly on the poor. The landowners pay Schedule A, the merchants pay Schedule D. In truth, we have taxes fitting every class of Her Majesty's subjects. It is an error to suppose that the justice of the income tax rests on its being levied upon every description of property, upon all incomes, and upon every individual. So far from its being so, its operation is very limited. If it were possible, or indeed desirable, to abolish every other tax, and substitute for it an universal income tax, then we might exclude all other considerations and endeavour to make this one tax perfect. Not so in the present system of finance. The place taken by the income tax in the general revenue is the same now, as it has been from the first, when it came forth fresh from Sir Robert Peel's mind. It is, on the one hand, to provide a sufficient sum whereby the Chancellor of the Exchequer may avoid imposing new taxes, or remit prejudicial ones, and, on the other, to maintain such a share of direct taxation as may be necessary, in order to reach the more affluent classes of society, who might otherwise escape from contributing a share proportionate to their incomes. Whether is it desirable that the Chancellor of the Exchequer should continue to risk the popularity of his entire budget from year to year for a comparatively small amount of revenue, which may readily be obtained by other means, is a question for serious consideration. Experience shows that the income tax touches to the very quick the sensitiveness of the tax-payer. In India, it was so unpopular that the finance minister saw no other alternative but its total abolition. In France, the attempt made by M. Wolowski and others to introduce it, utterly failed. And we well know, that if in this country it has been maintained for so long a time, it has not been without great difficulty. In 1842, it was submitted to because it was necessary to restore public credit, and the balance between the revenue and expenditure. In 1845, because it was expedient to make a great experiment of reducing other taxes. In 1851, a declaration in favour of the speedy cessation of the income tax accompanied the resolution of the Budget on the subject. In 1853 Mr. Gladstone said that—"There "are circumstances connected with its operation which make it diffi-"cult, perhaps impossible, at any rate not desirable, to maintain it as "a portion of the permanent and ordinary finances of the country." Since 1860 the income tax has only been granted by an annual Act. And last January, on the eve of the dissolution of Parliament, Mr. Gladstone published his manifesto announcing his intention to recommend its total repeal.

The objections urged against the income tax are—1st, That it is a war tax, never meant to be permanent, and always consented to almost under protest, simply to meet certain particular exigencies. 2nd, That as a form of taxation it is especially grievous, inasmuch as it is inequitable in its assessments, inquisitorial in its procedure, and, by experience found to be conducive to fraud. And, 3rd, that it presses heavily on certain classes of society. Let us consider these objections one by one.

III.—*Objection that the Income Tax is no longer Required.*

The objection that the income tax is a war tax, is of course untenable. It was in the midst of absolute peace, that Sir Robert Peel introduced it in 1842, whatever might have been the occasion of the first levying of a similar tax by Mr. Pitt.* If it be objected, however, that the income tax should be imposed now, when the finances of the country are prosperous, and when there is no special exigency for it, the answer is, that the amount received from the income tax has been for many years an important item in the supplies for the year, and could not well be spared altogether even now. The present condition of finances is doubtless satisfactory. The customs have borne all the changes caused by the total abolition of many duties, and the reduction of many more, with wonderful fortitude. The excise and inland revenue is steadily increasing. The post office and telegraphic services are more and more productive, and the result is a handsome surplus for the last year, and a well-founded expectation that, if things remain as they are, the income for next year will be found to exceed the expenditure by about 5,000,000*l*. But is it safe to place too much reliance upon this state of things? It should be remembered that if during the last ten years there has been an average annual surplus of income over expenditure of about 2,500,000*l*., the average produce of the income tax has been 7,500,000*l*. per annum. Moreover, much of the increase of late years has arisen from the large consumption of spirits and malt, the results of an extraordinary buoyancy of industry, trade has shown some signs of declension, and the high price of coal, iron, and labour is injuriously affecting the productive industry of the country. Is it quite safe to count upon the continuance of those circumstances which have been so beneficial to the exchequer? For many years past our finance ministers have been in the habit rather of under-estimating than over-estimating the forthcoming annual revenue. This year we are in danger of being too sanguine. If the equilibrium of finance be the aim of a well-conceived budget, the result of a just and sound appreciation of the wants and resources of the country, Table II in the Appendix shows that there is yet much to be done in the way of acquiring such an insight into the future, while it is evident that it is always the safest to be prepared for those disturbing influences which often frustrate the most careful calculations. During the last forty-four years the average amount of difference between the estimates and the realisations has been about 2,000,000*l*. per annum. Viscount Althorp and Mr. Baring were rather sanguine in their estimates, but Sir Robert Peel, Mr. Spring Rice, Mr. Goulbourn, Sir Charles Wood, Mr. Disraeli, Mr. Gladstone, and Mr. Lowe have erred on the safe side, in being timid in their expectations. I admit the simplicity of the argument, that an objectionable tax, imposed under sheer necessity, should be removed immediately as that necessity is removed. But we should not assume that the necessity for the amount thereby obtained is at an end, simply because in the present year the state of finances might justify the remission.

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* The graduated war assessed taxes imposed by Mr. Pitt in 1797 were, in effect, a tax upon income. The first direct income tax proposed by Mr. Pitt was in 1798. A taxable income of 102,000,000*l.*, was estimated at 10*l.* per cent. to produce 10,000,000*l.*, but it produced considerably less. In 1800 it produced 4,513,000*l.*, and in 1801 5,804,000*l.* The tax ceased in 1802, but was renewed in 1803, and then it continued in force till 1815.

IV.—*Objection on Account of want of Equity in its Assessment.*

A more important objection to the income tax is the want of equity in the assessment. It is certainly inequitable, that a person earning 500*l.* a-year by dint of hard work, subject to all the eventualities of health and accidents, of oscillations of trade, and change of fashion, should pay as much as one in receipt of the same sum from land or consols, or from any other source absolutely certain in character, and independent of any casualty. It is inequitable to charge an income, which consists partly of interest of capital, and partly of the capital itself, such as an annuity, in the same manner as an income, which leaves the capital always intact. As summarised in the report of the Committee of the House of Commons of 1862, it is scarcely fair, that capital given as the consideration for annuities terminable by lapse of years, or lapse of life, should be taxed on the annuity through which it is being repaid with interest: That capital in the course of realisation, through the working of mines, should be taxed on the assessment of the entire value of their produce: That the portion of land rent applied to the maintenance of the property, insurance, and repairs, should be taxed, although not available as income: That the portion of house rent applied to the maintenance of the property, insurance, and repairs, should be taxed, although not available as income: And that industrial earnings, should be taxed to their full extent, although their dependence on the life and efficiency of those, whose labour is indispensable to their production, requires that a considerable portion be annually saved, such portion when invested as capital being again taxed in its subsequent products. To remedy these objections, which have all along been experienced and complained of, two committees of the House of Commons have been engaged. Mr. Hume's Committee, in 1851, which had the advantage of receiving evidence from some of the most eminent actuaries, proposed the capitalisation of all incomes according to their marketable value, taking into account the value of the property, the tenure of the owner and his age, and the assessment of the tax, not on the annual income, but on the capitalised value.* Mr. Hubbard's Committee, in 1861, endeavoured to deal with the essential defects of the tax, and considered the expediency of taking the net instead of the gross income as the basis of assessment; of dividing all incomes into spontaneous and industrial, taxing the former upon the full amount, and the latter upon two-thirds of the income; and of distinguishing between the interest of invested capital, and the repayment by instalment of the invested capital itself. But, unfortunately, neither of these plans was free from difficulties and objections. The committees themselves were not satisfied that they afforded a basis for a practicable and equitable readjustment of the income tax. The Inland Revenue Commissioners submitted, wrongly as I think, that the schemes were impracticable, and so no alteration was attempted.

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* The Commissioners of the Inland Revenue in their first report said "that "the theory which has been so frequently advanced of capitalising property and "profits, and charging on a rate of interest having relation to the nature of that "capital, is one which cannot be, or at least has never yet been, reduced by its "proposers to any intelligible details, so as to enable a judgment to be formed of "the advantage or the possibility of carrying it into effect." See on this subject the able paper of Dr. Farr on the income and property tax read before the Society

V.—*Objection as Regards its Inquisitorial Character.*

The objection on the ground of its inquisitorial character is a necessary consequence of the dependence of the tax on the declaration of the taxpayer. In the levying of customs' duties, the goods are arrested ere they reach the consumer. In the levying of the stamp duties, the revenue protects itself by declaring illegal any contract for which the due stamp has not been purchased. But for the income tax, there is no such guarantee. Its success depends on the truthful declaration of parties whose interests are at direct variance with the demands of the Commissioners. And unfortunately, as Mr. McCulloch put it, the tax is a penalty on honesty and a boon on dishonesty. Nor does it less endanger the collection of the tax, or does it tend to diminish the aversion with which the tax is regarded, that the Commissioners are empowered to demand an inspection of books, or to refer to other persons in the same trade, for the purpose of testing the truth of any doubtful declaration. To compel a person to declare his own income for the purpose of taxing it is in its very nature a hard demand, and it is sure to be resented as inquisitorial, whatever means be adopted to soften the rigour of the procedure. And what is the consequence? Why, a direct temptation to falsehood. The State, as a moral agent, has much in its power to encourage the cultivation of the duty of truth, but the income tax acts against the inculcation of this duty. Just as a custom-house oath became nugatory even to a proverb, so the declarations to income tax inspectors have come to be regarded as quite untrustworthy. Again and again, attention has been directed to the systematic undervaluation of incomes by all classes. The assessors know it well, but they cannot prevent it. Acting in a haphazard way they often resort to arbitrary surcharges; but this only serves to irritate the taxpayers. Quite recently, in consequence of an extensive demolition of houses in a certain district by the

twenty years ago, *Journal of the Statistical Society*, vol. xvi, p. 1. And also a paper on the income tax question by Mr. Hallett, read before the British Association at Bradford in 1873.

Metropolitan Board of Works, the Income Tax Commissioners found, from the demands for compensation, that the real incomes of a large number of such persons were considerably above the amount returned, and very properly they instituted proceedings against the same. Whereas the aggregate taxable income returned by the parties themselves was 73,642*l.*, the amount ultimately found to be correct was 171,370*l.*, showing an excess over the return of 97,728*l.*, or 130 per cent.; as many as 40 per cent. of the persons assessed having understated their income. Nor had the Commissioners of Inland Revenue reason to consider this an exceptional case. On the contrary, they felt themselves justified in making a calculation of the loss sustained by the revenue from such misrepresentations, applying the results in those cases to the whole country. The total number of persons assessed under Schedule D in 1864-65 was 350,312, and the amount assessed upon the whole number was 110,105,000*l.* Let the defalcation be upon 40 per cent. of this amount, or on 44,042,000*l.*, and the 130 per cent. additional will show a difference of 57,255,000*l.*, which, at 6*d.* in the pound, gave a loss to the revenue of 1,431,000*l.* The Commissioners of Inland Revenue in commenting upon these facts stated that they did not suppose that in all cases in which the income tax returns are deficient there was a wilful attempt to defraud the revenue. In many instances the errors which are committed are unintentional. But the effect on public income is the same. Perhaps the best of all tests of the capacity of a person to pay taxes is the house he lives in. Comparing the number and rental of inhabited houses in the year ending 5th April, 1871, and the number of persons charged to income tax under Schedule D, in the year ending 5th April, 1872, numbers are as follows:—*

Rental.	Average Rental.	Number of Houses.	Incomes.	Average Income.	Number of Persons Charged.
£ £	£			£	
10 and under 20	15	1,397,000	Under 100*l.*	—	229,000
20	20	93,000	100*l.* and under 200*l.*	150	83,000
Above 20 and under 30	25	208,000	200*l.* ,, 300*l.*	250	63,000
At 30 ,, 50	40	262,000	300*l.* ,, 500*l.*	400	41,000
,, 50 ,, 100	75	163,000	500*l.* ,, 700*l.*	600	17,000
,, 100 ,, 150	125	40,000	700*l.* ,, 1,000*l.*	850	9,000
,, 150 ,, 200	175	13,000	1,000*l.* ,, 2,000*l.*	1,500	10,000
,, 200 ,, 300	250	10,000	2,000*l.* ,, 4,000*l.*	3,000	5,000
,, 300 ,, 500	400	5,000	4,000*l.* ,, 10,000*l.*	7,000	3,000
,, 500 ,, 1,000	750	2,000	10,000*l.* and upwards	—	1,000
,, 1,000 and upwards	—	800			
	—	2,193,800		—	461,000

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* The number of inhabited houses estimated at a rental of 10*l.* to 20*l.* is taken from the census of England and Wales, and applies to that part of the

According to this table, the excess of evasion of the income tax is more among persons possessing moderate incomes than among those possessing large incomes. With 495,800 houses rented at 30*l.* and upwards, tenanted by persons receiving incomes of 200*l.* and upwards, only 149,000 persons were charged to income tax under Schedule D. Even if we add 38,000 persons charged under Schedule E, the total number so charged does not exceed 187,000 persons. If we exclude the number of houses rented at and under 20*l.* and the number of persons with incomes under 100*l.*, it would appear that out of 703,800 householders there are only 270,000 persons charged to income tax under Schedules D and E, or considerably less than the half. What number of householders are charged to income tax under Schedule A or C, who do not come under either Schedules D and E, there is no means of knowing, but it cannot be very large.* From whatever light it be regarded, it is evident, 1st, that the income tax fails from reaching a large number of persons having incomes within the range of its operation; 2nd, that it is impossible by means of personal declarations or otherwise, whether from misconception of the parties themselves, or from fraud, to arrive at the real incomes to be taxed; and, 3rd, that on moral grounds, as well as a measure of expediency, the attempt to pry into the affairs of private individuals is highly objectionable.

VI.—*Objection that the Tax presses Injuriously.*

The objection that the income tax presses heavily on certain classes of society can, I think, be scarcely substantiated. There is no evidence of fact to support it. It cannot be urged that the income tax, more than any other tax separately, or all the taxes collectively, has injuriously affected the accumulation of wealth, whether real or personal, since every species of property has been increasing under it of late years at an enormous ratio. Loud lamentations have been made against the pressure of local rates on real property. But Mr. Purdy, in his excellent paper on the

United Kingdom only. The number of houses at rentals from 20*l.* and upwards, is taken from a return of the House of Commons (384) of 1872, and applies to England and Scotland. The number of persons charged to Schedule D of the income tax is taken from a return of the House of Commons (397) of 1873, and applies to the United Kingdom. The numbers, therefore, are not strictly comparable.

* Part of the disparity between the number of houses and the number of persons charged to income tax may be accounted for by the large number of houses held as lodging houses, by the fact that often one income tax assessment may affect several persons inhabiting as many houses, and also by the fact that many householders constantly shift from house to house, and are thereby not easily reached by the income tax collectors. But when we have made due allowance for these cases, there still remains a great disparity in the number of persons affected respectively by the house tax and the income tax.

pressure of taxation on real property, has shown, that notwithstanding all the complaints against the excess of local and imperial taxation bearing heavily upon them, land and other kinds of real property have made wonderful progress, and that, in fact, what is deemed to be a burden is only an investment, all expenditure upon the maintenance and repair of roads and bridges, upon the drainage and embankment of marsh lands, upon the sewerage, paving, and lighting of towns, and upon many other services performed by improvement commissioners, as well as the sanitary measures undertaken by boards of health, are operations signally beneficial to rateable property. Table V in the Appendix, taken from the "Statistical "Abstract," p. 16, shows that from 1862 to 1871, the income from land increased at the rate of 8 per cent., from houses of 39 per cent., from mines 32 per cent., from ironworks 150 per cent., from railways 48 per cent., from gas 97 per cent., from quarries 63 per cent., the income from canals being the only item showing a decrease; the whole having increased from 148,698,000*l.* in 1862 to 189,215,000*l.* in 1871, being at the rate of 27 per cent. But the same progress is marked under every Schedule. Table III in the Appendix shows that since 1855, when the tax extended over the United Kingdom, the amount assessed under Schedule A has increased from 125,000,000*l.* to 153,800,000*l.*; on Schedule B from 49,300,000*l.* to 59,000,000*l.*; on Schedule C from 27,000,000*l.* to 39,900,000*l.*; on Schedule D from 91,000,000*l.* to 203,000,000*l.*, and on Schedule E from 15,000,000*l.* to 28,000,000*l.* And the accompanying Table IV shows how each of these sources contributed its increasing quota to the revenue. Objection to the income tax might, with reason, be advanced by persons possessing only moderate means, where the improvement of incomes in late years has scarcely been commensurate to the increased expenditure, whether from the increased cost of the principal necessaries of life, or from the altered standard of living. But for these great consideration has been shown in the abatement now of 80*l.* on all incomes under 300*l.* a-year, upon which as many as 291,517 persons made claim for the total amount of 17,469,000*l.* The best evidence that the income tax has not pressed very hard is the general progress of all incomes. When we compare the number of persons charged to income tax under Schedule D in 1862 and 1872, as shown in Table VI, the increase is nearly uniform in all classes of incomes. Of persons assessed for incomes under 200*l.* there were 7,104 per million of inhabitants in 1862, and 9,752 in 1872, showing an increase of 37 per cent. A still greater increase, amounting to 44 per cent., took place in the number charged with incomes from 200*l.* to 500*l.* There is a somewhat less progress in the number having incomes from 500*l.* to 1,000*l.*, the rate of increase having been 28 per cent. But in the numbers with incomes from 1,000*l.*

to 5,000*l.* there was an increase of 43 per cent., and in the incomes from 5,000*l.* and upwards of 36 per cent; sixty-nine persons in 1862 and seventy in 1872 paying income tax on 50,000*l.* and upwards. In individual cases, the income tax may operate harshly, but it would be erroneous to suppose that it has at any time pressed very severely either on the nation at large, or on any class of the community.

VII.—*Diminution of the Burden of Taxation.*

No class has, in truth, suffered from taxation within the last twenty or thirty years, the amount of taxation bearing a much smaller proportion to the total annual income of the nation now than at any previous period. In the year ended 31st March, 1842, the year when the income tax was first introduced, the gross revenue of the United Kingdom was 52,228,320*l.*, or in the proportion of 1*l.* 19*s.* 1*d.* per head of the population. Thirty years after, in the year ended 31st March, 1873, the gross revenue amounted to 81,800,000*l.*, or in the proportion of 2*l.* 12*s.* 2*d.* per head of the population, showing an increase of 33 per cent. But in the same period the wealth of the United Kingdom has enormously increased, the property and profits assessed to income tax in Great Britain alone having increased from 251,000,000*l.* in 1843 to 439,000,000*l.* in 1872, showing an increase of 75 per cent. There is another element, moreover, which makes the taxation now still lighter. In the year ended 31st March, 1842, out of a total revenue of 52,228,000*l.*, 50,287,000*l.*, or 96 per cent., was derived from taxation; and 1,941,000*l.*, or barely 4 per cent., from other sources, including the post office, repayments, crown property, &c. In the year ended 31st March, 1873, out of a gross revenue of 81,800,000*l.*, as much as 10,900,000*l.* was obtained from other sources, the proportion being only 87 per cent. from taxation, and 13 per cent. from other sources. Surely there is no reason to grumble at the amount of taxation with facts of this character before us. Nor can we forget the immense improvement in the method of taxation. Comparing the taxation of 1842 and 1873, as it affected respectively property, luxuries, and the necessaries of life, the results are as follows:—

Taxes.	1842.	Per Cent. on the Whole.	1872.	Per Cent. on the Whole.	Increase per Cent.	Decrease per Cent.
Taxes affecting Wealth and Industry—	£		£			
Licences	1,800,000		2,000,000			
Land and house tax	3,000,000		2,300,000			
Stamps	7,300,000		9,900,000			
Property tax	—		7,500,000			
	12,100,000	24	21,700,000	33	79	—
Taxes on Luxuries—						
Spirits, British and foreign	7,600,000		18,600,000			
Malt	5,300,000		7,500,000			
Wine	1,700,000		1,700,000			
Tobacco	3,500,000		7,000,000			
Licences	900,000		1,900,000			
	19,000,000	38	36,700,000	55	93	—
Taxes on Necessaries—						
Sugar	5,300,000		3,300,000			
Tea	3,900,000		3,200,000			
Coffee	900,000		200,000			
Corn	600,000		—			
Other imported articles	5,000,000		600,000			
Other excise duties	3,500,000		600,000			
	19,200,000	38	7,900,000	12	—	58
	50,300,000	100	66,300,000	100	32	—

No better evidence could be offered of the salutary effect of the changes in our financial system inaugurated by Sir Robert Peel, and still more extended by Mr. Gladstone, and by every succeeding minister of finance within the last thirty years, than the fact that, whereas in 1842 38 per cent. of the taxes pressed on the necessaries of life, now only 12 per cent. comes from that source; and that, with all the increase in the taxes affecting wealth, industry, and luxuries, these are growing *pari passu* at an enormous ratio.

VIII.—*The Income Tax a Two-Fold Tax on Property and Income.*

It is important to realise that the income tax is a property tax as well as an income tax. The annual value of lands and houses is charged side by side with the income from industry and labour. On the one side it is an addition to the land and house taxes; on the other, it is a distinct branch of taxation pressing on the great industrial population. As originally imposed by Mr. Pitt, the Act did not put a duty upon property, but imposed additional duties of assessed taxes, regulated by the amount of income which the person charged possessed. In 1803, the present system of charging incomes upon all property and profits at their first source was introduced, and the return of the whole income previously required was abandoned, and the same principle was adopted by Sir Robert Peel in reimposing the tax in 1842. During the ten years from 1862 to 1871, the average amount of income tax assessed under the different schedules has been as follows:—

Schedules.	Average Amount.	Per Cent.
	£	
A. From land	3,420,000	41
B. „ occupation of land	417,000	5
C. „ dividends	801,000	10
D. „ industry	3,104,000	38
E. „ salaries	517,000	6
	8,259,000	100

Mr. Hubbard classified the two classes of incomes upon which the income tax is levied as spontaneous and industrial. Incomes from land, mines, quarries, ironworks, and public funds constituting the spontaneous, classed under Schedules A and C, produced 4,200,000*l*. Incomes from occupation of land, industry, and salaries under Schedules B, D, and E, constituting the industrial, produced 4,000,000*l*. In other words, one-half of the income tax is levied on incomes of permanent character, and another half on incomes uncertain and temporary; one-half on property which is apparent and the income from which cannot be evaded, and one-half on income not visible and liable to no detection. Let us preserve the one and sacrifice the other. That is the simplest mode of dealing with the question.

IX.—*The Property Tax.*

It cannot be said that the taxation of real property in the United Kingdom is higher than in any other country, but it is more complicated and vexatious. Mr. Goschen, in his "Report on "Local Taxation," pp. 170 and 171, compares the taxation of real property in Britain, France, and Belgium as follows:—

Countries.	Year.	Annual Value of Real Property.	Amount of Taxation on Real Property.	Rate per £ of Taxation.	
		£	£	*s.*	*d.*
United Kingdom	1868–69	175,516,000	26,546,000	3	–¼
France	'67	160,000,000	23,528,000	2	11¼
Belgium	'69	11,400,000	2,056,000	3	7¼

The proportion of imperial taxation bearing on real property is decidedly less in the United Kingdom than in any other country. According to Mr. Goschen's Report, p. 39, it is as follows:—

	Percentage of Imperial Taxes on Real Property.	Percentage of Imperial Taxes not on Real Property.
United Kingdom	10·52	89·48
Russia	11·88	88·12
Prussia	15·35	84·65
Holland	21·91	78·09
Austria	26·10	73·90
France	29·31	70·69
Belgium	36·82	63·18
Hungary	38·69	61·31

In 1868-69 the proportion of imperial taxation on real property in the United Kingdom, as shown in Mr. Goschen's "Report," p. 133, was actually less than in 1826:—

	Percentage of Imperial Taxes on Real Property.	Percentage of Imperial Taxes not on Real Property.
1826	10·98	89·01
'43	12·75	87·25
'51	10·99	89·01
'61-62	13·29	86·71
'68-69	10·52	89·48

It is only when we add the local and imperial taxation together, that the proportion on the real becomes somewhat larger, but even then it is less in this country than in Belgium, as will be seen from the following:—

	Percentage of Local and Imperial Taxes on Real Property.	Percentage of Local and Imperial Taxes not on Real Property.
Russia	17·28	82·72
Holland	20·16	79·84
Austria	27·93	72·07
United Kingdom	30·42	69·58
Belgium	31·92	68·08

The leading taxes on real property for imperial purposes are the taxes on land and houses, besides a portion of the probate and succession duties, and a portion of the stamp duties on deeds.

The land tax, which in the year ended 31st March, 1872, produced 1,096,000*l.*, is levied in the most unsystematic manner. It is, in fact, a bare relic of an impost long ago effete. Better far to double the facilities for its complete redemption and have done with it, than to continue it as it is. But land is, moreover, taxed for income tax under Schedule A, in the sum of 65,000,000*l.*, whilst houses are taxed for the assessed value of 87,700,000*l.* to income tax, and to the amount of 41,400,000*l.* to the inhabited house duty. There is much anomaly in the different methods of assessment for local and imperial purposes. Whilst for local purposes allowance is made for repair and other expenses, for imperial, the gross annual value is taken. Would it not be better to abolish this anomaly? Levy the tax on the value of property as ascertained by the surveyors for the purposes of local taxation, and allow the same deduction in the value for imperial purposes as is made for local purposes, and substantial justice will be done to all owners of property. What I would propose, therefore, is the limitation of the present income tax to land and other real property, including within its range all lands, tenements, railways, canals, mines, quarries, now charged under Schedules A and D, making proper deduction for repairs, &c., in the same manner as for local purposes. Deducting from the 194,000,000*l.* the assessed amount of such property 16 per cent., the taxable amount would be 163,000,000*l.*, which, at 3*d.* in the pound, would give a revenue of about 2,000,000*l.* instead of 2,450,000*l.*

The other portion of the income tax on spontaneous revenue is the tax on dividends from public funds, consisting of 22,000,000*l.* interest on funded debt, 4,500,000*l.* interest on unfunded debt, less the amount held by charities now untaxed, and 11,500,000*l.* from dividends on foreign securities, the whole amount on which income tax was levied having been 38,000,000*l.*[*] It is essentially unjust to place the interest of funded debt on a par with annuities for a number of years, and now that the legislature has sanctioned the method of reducing the national debt as much as possible, by the conversion of permanent into terminable annuities, it is the more necessary that the taxation upon both should be equally balanced. The soundest mode of taxing this kind of property is to take the capital of the one and the capitalised value of the other, as given in the "Statistical Abstract," as a basis for taxation. In 1872 the

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[*] The value of property assessed to income tax under Schedule C for dividends arising from British, Indian, Colonial, and Foreign stocks for the year ended 5th day of April, 1873, is as follows:—

	£
British	21,160,000
Indian	7,032,000
Colonial	2,840,000
Foreign	9,341,000
	40,373,000

The particulars distinguishing the amount assessed on dividends were obtained by a return kindly moved by Mr. McArthur by desire of the author.

funded debt amounted to 727,000,000*l.*, the annuities for years 53,000,000*l.*, the unfunded 5,000,000*l.*, total 785,000,000*l.* Ten shillings per 1,000*l.* on the total capital would give a sum nearly equal to the amount now got from Schedule C. There is no means, I fear, of capitalising the value of foreign securities, but it would be safe to take the annual revenue at ten years' purchase, or 100,000,000*l.* in all.

X.—*The Tax on Income.*

All the other portions of the income tax should, in my opinion, be abolished. The farmers should be relieved of their tax on the occupation of land. The civil service servants of their tax on salaries and pensions, and the great body of persons charged under the generic Schedule D should also be liberated from the burden of making a declaration of their income and of being taxed thereon. Doubtless it is disappointing, after many years' endeavour, to have to relinquish the attempt to tax industrial incomes, and we might have expected that, with the increase of intelligence and the strengthening of confidence in the public administration, means might have been found to render even the income tax not only possible, but popular. But it is not so, and moral and financial considerations suggest its total abolition. Whatever may be said in favour of taxing industrial income, the objections against the impost are fatal to its success. Its unpopularity, its uncertainty, and its injustice, are a sufficient barrier to the general acceptance of the tax as a permanent branch of the revenue, and it is wise to accept the irrevocable judgment formed of the tax long ago on this subject by the public at large, and the dicta more recently pronounced against it by one of the highest authorities in finance, the Right Hon. W. E. Gladstone. It may be objected that if the income tax is to be abolished on industrial incomes, it must also be abolished on incomes from land and the funds. But there is no solidarity of interests between the various portions of the tax. Each stands by itself. And there is this wide difference between the one portion and the other, that whilst in the one case we tax property in land and houses, and property in the funds which is as secure as land, at least so far as it refers to the funded debt of the United Kingdom, in the other case the tax rests on profits and salaries uncertain in themselves, and constantly varying in amount. How far it is advisable to tax the public funds, and whether or not such a tax is liable to the charge of repudiation, it is a grave question worthy of serious consideration, on which I do not venture to offer an opinion, but certainly it is a poor defence to urge that the tax forms part of a general income tax. Should the range of the property tax be narrowed in the way indicated, the loss to the revenue will be considerable, and a substitute must be found for it of a character somewhat similar, and affecting as nearly as possible the same classes of the community.

XI.—*The Inhabited House Duty.*

"A house tax," said John Stuart Mill, "if justly proportioned "to the value of the house, is one of the fairest and most unobjec- "tionable of all taxes. No part of a person's expenditure is a "better criterion of his means or bears on the whole more nearly "the same proportion to them. A house tax is a fairer approach to "a fair income tax than a direct assessment on income can easily "be, having the great advantage that it makes spontaneously all "the allowances which it is so difficult to make, and so imprac- "ticable to make exactly, in assessing an income tax, for if what a "person pays in house rent is a test of anything, it is a test not of "what he possesses but of what he thinks he can afford to spend." A house tax, in one form or another, has been in existence ever since 1696. Before 1825 the tax was imposed upon all houses of the yearly rent of 5*l.* and upwards; from 1825 to 1834 the rates were as follows:—A house of the yearly rent of 10*l.* and under 20*l.* paid 1*s.* 6*d.* in the pound; of 20*l.* and under 40*l.*, 2*s.* 3*d.*, and of 40*l.* and upwards 2*s.* 10*d.* in the pound. From 1835 to 1850 the tax was repealed, but in 1851 it was reimposed on all houses and shops of 20*l.* a-year rent and upwards, at the rate of 6*d.* in the pound on houses occupied for purposes of trade and 9*d.* in the pound on houses occupied in any other manner. The revenue from the inhabited house tax is not great. In 1852 it produced about 700,000*l.*, and in the year 1872 it gave 1,300,000*l.*, in consequence of the expansion of house property within the last twenty years. But there is still room for improvement, and the proposal I would make is to reconstruct the present inhabited house duty, by imposing the tax on all houses of 10*l.* and upwards, instead of 20*l.* as at present, by graduating the tax according to the rental, by deducting from it one-sixth, or 16 per cent. of the value, for repairs, &c., and by equalising the tax on houses inhabited and used for trade or otherwise, as follows:—

House Rent.		Rate.		
£	£	*s.*	*d.*	
10 and under	20	–	6	in the pound.
20 „	50	1	–	„
50 „	100	1	6	„
100 and upwards		2	–	„

Taking as a basis the value of houses from 10*l.* to 20*l.*, as given in the census of 1871 for England and Wales, and the value of houses 20*l.* and upwards, as given in a recent return embodied in the eighth volume of the "Miscellaneous Statistics," the revenue of the house duty so levied may be estimated as follows:—

Number of Houses.	Rental.	Annual Value of Houses.	Rate of Duty in the Pound.	Estimated Amount of Revenue.
	£ £	£	*s.* *d.*	£
1,397,000	10 and under 20	21,000,000	– 6	525,000
563,000	20 " 50	21,000,000	1 –	1,050,000
163,000	50 " 100	12,000,000	1 6	900,000
70,800	100 and upwards....	18,000,000	2 –	1,800,000
2,193,800		72,000,000	—	4,275,000

Deducting 16 per cent. the total amount may be 3,600,000*l.*

The merit of the house tax, in preference to any other tax, is that its burden is spread over a large number of persons, that on the whole it is equitable and, above all, certain. As a general rule, the rent of the house constitutes about 10 or 12 per cent. of a person's income, that is, that a person with 400*l.* a-year generally lives in a house of 50*l.* rent. What effect will the additional house duty (for we must deduct the present rate of 9*d.* in the pound) have upon persons of moderate incomes? Let this table answer.

Income.	Income Tax at 3*d.* in the Pound.	House Rent.	Extra House Duty in the Pound.	Amount of Tax.
£	£ *s.*	£ *s.*	*d.*	£ *s.* *d.*
200 (less deduction) 120	1 10	25 –	3	– 6 3
300	3 15	37 10	3	– 10 1
500	6 5	60 –	9	2 5 –

The comparison thus appears favourable, especially to smaller incomes. There may certainly be found cases where a prosperous business-man, earning 10,000*l.* a-year, may live in a house rented at not more than 500*l.* a-year, and a widow lady, earning but a small pittance for her livelihood, may live in a house to let for lodgings at 50*l.* or 70*l.* a-year. But cases like these are happily the exception, and not the rule. Much may be said in favour of a uniform additional house tax instead of the proposed graduated rate, It would be simpler, it would be more in accord with the general method of taxation, it would not act as a premium on inferior house building. If it be so preferred, the same amount of house property, at a rate of 1*s.* 3*d.* in the pound, would produce about 3,600,000*l.*, and, if extended to Ireland in the same manner as the income tax is now extended, the produce would probably exceed 4,000,000*l.* There would be considerable advantage in abolishing the inhabited house duty as a separate tax, with a view of getting rid of the difficulty of defining what is inhabited, and what is not, and of incorporating the amount with the income tax. Such a change, however, would have direct bearings on the incidence of taxation, since whilst the income tax is levied on the owner, the inhabited house duty is levied on the occupier, a difference which some causes the half at least of the duty to fall directly upon industry. It may be objected that the substitution of an additional house tax for the portion of the income tax bearing more directly on industry, whilst lightening the burden of trade will further aggravate the burden on real property. But even with this addition, the relative amount of taxation, including both imperial and local, will stand in the proportion of 30 per cent. on real property, and 70 per cent. not on real property. Moreover, a large portion of the land and house tax now presses on industry, not only in consequence of the incidence of taxation, which causes it to fall partly on the occupier, but also from the change of the personnel in the ownership in land and houses in operation from land and house owners as a distinct class to merchants and bankers, freeholders and building societies, who own considerable amount of real property.

XIII.—*General Results.*

The general results of the reforms I ventured to suggest in the incomes and property tax and the inhabited house duty may be estimated as follows:—

Present Income.

Schedule.	Gross Amount of Property.	Rate in the Pound.	Probable Amount of Revenue in 1873-74.
	£	*d.*	£
A. From lands, tenements	154,000,000	3	2,420,000
D. ,, mines, railways, quarries	40,000,000	3	
B. ,, occupation of land	59,000,000	1½	366,000
C. ,, annuities, funds	39,000,000	3	2,870,000
D. ,, industry	163,000,000	3	
E. ,, salaries, pensions	28,000,000	3	
Income and property tax	—	—	5,656,000
Inhabited house duty	—	—	1,300,000
	—	—	6,956,000

Suggested Plan of Revenue.

	Rateable Amount of Revenue.	Rate in the Pound.	Probable Amount of Revenue.
	£		£
Lands, houses, mines, quarries	165,000,000	3*d.*	2,000,000
Annuities, dividends, British	785,000,000	10*s.* pr. 1,000*l.*	392,000
" Foreign	100,000,000	—	50,000
Inhabited house duty	60,000,000	1*s.* 3*d.*	3,700,000
	—	—	6,142,000

The immediate subject before the Society this evening is the income tax. Shall it become a permanent source of revenue, or not? If the answer be in the affirmative, the further question is, how far shall it extend? Shall it be levied upon both the spontaneous or industrial incomes, or upon the spontaneous only? If it should be levied on both descriptions of property and income as at present, shall it be levied on the present method of regarding all incomes alike, or on the plan of calculating the real character of each description of income? And if industrial incomes are to be taxed, shall this tax be levied on small incomes of 100*l.* and upwards, subject to deductions, or upon incomes of only 300*l.* or 500*l.* and upwards? My own impression is adverse to the maintenance of the income tax on anything but spontaneous incomes. The whole question, however, is before the country, and will receive careful consideration. The prospects of the revenue are somewhat perplexing. A free breakfast table, involving the loss of the present revenue from sugar, tea and coffee, in the amount of upwards of 6,000,000*l.* is earnestly sought for, and will have to be conceded since the Chancellor of the Exchequer has already taken off the sugar duties. The farmers are clamorous for a reduction of the malt tax, now producing some 8,000,000*l.* a-year. And there is manifest danger in making so large a portion of the national revenue dependent on the consumption of spirits. Nor can we say that there is any scientific method in the system of taxation, or more than a very general approximation to a fair distribution of taxes. Few, I think, are prepared to urge the entire change of the present system for one single direct tax affecting every individual, either in the shape of a poll tax or of a universal income tax. A mixed system of direct and indirect taxes, if not the most economical, is at least more popular, and on the whole more expedient. Without going further than is necessary for our present purpose, I am convinced that the wisest policy to be pursued would be to maintain and rather increase the present amount of direct taxation in a manner calculated to cover as large an area as possible, including some section at least of the labouring population; to keep an even balance in case of any remission as regards the incidence of taxation on the middle and higher, as well as on the working classes; and above all to use any surplus from year to year for the purpose of making further conversions of the permanent debt for terminable annuities.

TABLE I.—*Gross Receipts at the Exchequer from Taxes*, 1841-73.

[000's omitted.]

Year Ended.	Customs.	Excise.	Stamps.	Taxes.	Income Tax.	Total Taxation.	Percentages of Income to Total Taxation.	Total Payments into the Exchequer.	Percentages of Income Tax to Total Revenue.
	£	£	£	£	£	£			
5th January, 1841	23,387,	14,871,	7,353,	4,164,	—	49,775,	—	51,685,	—
'42............	23,493,	14,762,	7,319,	4,712,	—	50,286,	—	52,228,	—
'43............	22,594,	13,592,	7,158,	4,508,	580,	48,432,	—	51,122,	—
'44............	22,609,	13,955,	7,122,	4,398,	5,340,	53,424,	10	56,806,	9
'45............	24,085,	14,379,	7,334,	4,431,	5,345,	55,574,	9	58,303,	9
'46............	21,802,	14,648,	7,886,	4,435,	5,190,	53,962,	9	57,556,	9
'47............	22,185,	15,023,	7,680,	4,487,	5,543,	54,918,	10	58,294,	9
'48............	21,674,	13,904,	7,704,	4,549,	5,604,	53,375,	10	56,135,	10
'49............	22,645,	15,171,	6,812,	4,526,	5,496,	54,650,	10	58,159,	9
1850............	22,264,	14,965,	7,025,	4,512,	5,559,	54,325,	10	57,576,	10
'51............	22,041,	15,278,	6,725,	4,567,	5,524,	54,135,	10	57,519,	10
'52............	22,219,	15,378,	6,545,	3,790,	5,439,	53,369,	10	56,772,	10
'53............	22,137,	15,746,	6,919,	3,568,	5,654,	54,024,	10	57,726,	10
'54............	22,506,	16,303,	7,148,	3,339,	5,732,	55,028,	10	59,097,	10
31st March, 1855........	21,630,	16,883,	7,109,	3,179,	10,642,	59,443,	17	62,969,	16
'56............	23,241,	17,491,	7,091,	3,119,	15,070,	66,012,	22	70,344,	21
'57............	23,532,	18,338,	7,389,	3,136,	16,089,	68,484,	23	72,893,	22
'58............	23,109,	17,825,	7,416,	3,154,	11,586,	60,090,	18	68,001,	17
'59............	24,118,	17,902,	8,006,	3,162,	6,683,	59,871,	11	65,623,	10
1860............	24,461,	20,361,	8,043,	3,232,	9,596,	65,693,	14	71,205,	13
'61............	23,306,	19,435,	8,348,	3,127,	10,924,	65,140,	16	70,388,	17
'62............	23,674,	18,332,	8,591,	3,160,	10,365,	64,122,	16	69,868,	15
'63............	24,034,	17,155,	8,994,	3,150,	10,567,	63,900,	16	70,604,	13
'64............	23,232,	18,207,	9,317,	3,218,	9,084,	63,058,	14	70,209,	13
'65............	22,572,	19,558,	9,530,	3,292,	7,958,	62,910,	12	70,314,	11
'66............	21,276,	19,788,	9,560,	3,350,	6,390,	60,364,	10	67,812,	9
'67............	22,303,	20,670,	9,420,	3,468,	5,700,	61,561,	9	69,434,	8
'68............	22,650,	20,162,	9,541,	3,509,	6,177,	62,039,	9	69,600,	9
'69............	22,424,	20,462,	9,218,	3,494,	8,618,	64,216,	13	72,592,	10
1870............	21,529,	21,763,	9,248,	4,500,	10,044,	67,084,	14	75,434,	13
'71............	20,191,	22,788,	9,007,	2,725,	6,350,	61,061,	10	69,945,	9
'72............	20,326,	23,326,	9,772,	2,330,	9,084,	64,838,	14	74,708,	12
'73............	21,033,	25,785,	9,947,	2,337,	7,500,	67,602,	11	76,608,	10

Table II.—*Budget Estimates and Actual Realisations.*

[000's omitted.]

Year.	Chancellors of the Exchequer.	Estimated.		Realised.		Difference from the Estimate.
		Surplus.	Deficiency.	Surplus.	Deficiency.	
		£	£	£	£	£
1830	Viscount Althorpe	3,013,	—	1,711,	—	−1,302,
'31		2,130,	—	2,913,	—	+ 783,
'32		492,	—	—	698,	−1,190,
'33		773,	—	1,487,	—	+ 714,
1834	Sir Robert Peel	516,	—	1,952,	—	+1,436,
1835	T. Spring Rice	977,	—	902,	—	− 75,
'36		185,	—	1,376,	—	+1,191,
'37		311,	—	1,862,	—	+1,549,
'38		384,	—	—	1,428,	−1,812,
1839	F. T. Baring	—	207,	—	430,	− 223,
'40		—	935,	—	1,437,	− 522,
1841	H. Goulbourn	—	841,	—	1,851,	−1,010,
'42		—	2,422,	—	2,139,	+ 383,
'43		631,	—	—	2,422,	−3,053,
'44		762,	—	2,095,	—	+1,333,
'45		2,746,	—	6,342,	—	+3,596,
1846	Sir Charles Wood	672,	—	2,380,	—	+1,708,
'47		777,	—	2,765,	—	+1,988,
'48		332,	—	—	3,092,	−3,424,
'49		—	2,031,	—	269,	+1,762,
'50		104,	—	2,538,	—	+2,434,
'51		771,	—	3,174,	—	+2,403,
1852	Benjamin Disraeli	925,	—	2,176,	—	+1,251,
1853	W. E. Gladstone	461,	—	2,460,	—	+1,999,
'54		495,	—	3,524,	—	+3,029,
1855	G. C. Lewis	467,	—	—	—	—
		—	3,543,	—	6,196,	−2,186,
'56		—	18,895,	—	22,724,	−3,829,
'57		—	9,373,	—	3,254,	+6,119,
1858	Benjamin Disraeli	931,	—	—	247,	−1,178,
1859	W. E. Gladstone	310,	—	813,	—	+ 503,
'60		253,	—	1,587,	—	+1,334,
'61		—	1,443,	—	2,508,	−1,065,
'62		—	1,204,	—	1,442,	− 238,
'63		—	130,	1,301,	—	+1,431,
'64		—	112,	3,152,	—	+3,264,
'65		—	121,	3,851,	—	+3,972,
1866	Benjamin Disraeli	—	857,	1,897,	—	+2,754,
'67		—	18,	2,654,	—	+2,672,
1868	Robert Lowe	—	1,311,	—	1,636,	− 325,
'69		—	262,	—	2,380,	−2,118,
'70		4,983,	—	6,569,	—	+1,517,
'71		—	1,852,	396,	—	+2,248,
'72		—	118,	3,218,	—	+3,336,
'73		183,	—	5,894,	—	+5,711,

TABLE III.—*Gross Annual Value of Property Assessed to Income Tax,* 1843-72.

[000's omitted.]

Year Ended 5th April	Great Britain.					
	A.	B.	C.	D.	E.	Total.
	£	£	£	£	£	£
1843	95,284,	46,769,	27,909,	71,330,	9,718,	251,013,
'44	94,517,	45,661,	27,340,	65,028,	11,282,	243,829,
'45	95,300,	46,328,	26,501,	65,095,	11,071,	244,297,
'46	98,458,	47,170,	25,585,	70,292,	11,454,	252,971,
'47	99,667,	46,649,	26,005,	70,576,	11,723,	254,621,
'48	101,444,	46,718,	26,132,	70,191,	11,926,	256,413,
'49	105,252,	48,164,	26,446,	67,061,	12,289,	259,214,
1850	105,024,	48,102,	26,310,	64,933,	11,759,	256,131,
'51	105,529,	48,016,	26,435,	65,717,	11,693,	257,392,
'52	105,839,	46,681,	26,351,	69,078,	11,540,	259,490,
'53	107,201,	46,656,	26,797,	70,038,	11,680,	262,375,
'54	111,222,	46,843,	26,833,	88,401,	13,584,	286,885,
	United Kingdom.					
1855	124,871,	49,396,	27,326,	91,280,	15,264,	308,139,
'56	126,528,	49,587,	25,778,	88,201,	17,326,	307,421,
'57	128,099,	49,701,	28,344,	89,198,	17,712,	313,056,
'58	136,614,	51,835,	29,515,	90,839,	18,333,	327,139,
'59	137,667,	51,699,	29,346,	90,365,	19,048,	328,127,
1860	138,950,	52,003,	29,701,	95,439,	19,094,	335,188,
'61	111,663,	52,102,	27,480,	94,740,	19,666,	335,654,
'62	148,651,	54,301,	29,083,	99,373,	20,335,	351,745,
'63	150,102,	54,301,	30,652,	103,120,	20,965,	399,142,
'64	151,942,	54,344,	31,528,	112,240,	21,046,	371,102,
'65	161,397,	56,180,	32,044,	124,075,	22,130,	395,828,
'66	165,615,	56,234,	33,070,	134,439,	23,745,	413,105,
'67	136,867,	56,434,	33,640,	173,088,	23,741,	423,773,
'68	143,071,	57,806,	33,689,	171,848,	23,953,	430,368,
'69	144,876,	57,960,	34,790,	173,054,	24,122,	434,803,
1870	146,526,	58,007,	35,700,	178,378,	26,301,	444,914,
'71	152,463,	59,124,	38,118,	189,024,	26,863,	465,594,
'72	153,863,	59,196,	38,646,	202,905,	27,763,	482,373,

TABLE IV.—*Amount of Income Tax Assessed under the Several Schedules,* 1843-72.

[000's omitted.]

Date.	Amount.	Great Britain.					
		A.	B.	C.	D.	E.	Total.
		£	£	£	£	£	£
1843....	7*d.* in the £ on incomes of 150*l.* and upwards; Great Britain only	2,500,	334,	812,	1,681,	278,	5,608,
'44....		2,471,	328,	795,	1,581,	327,	5,504,
'45....		2,486,	323,	767,	1,578,	319,	5,476,
'46....		2,587,	332,	744,	1,717,	330,	5,711,
'47....		2,604,	324,	756,	1,768,	337,	5,791,
'48....		2,653,	322,	760,	1,754,	344,	5,834,
'49....		2,754,	332,	769,	1,584,	352,	5,793,
'50....		2,727,	326,	766,	1,570,	338,	5,729,
'51....		2,725,	320,	769,	1,605,	332,	5,754,
'52....		2,767,	310,	767,	1,668,	331,	5,845,
'53....		2,782,	305,	749,	1,699,	333,	5,869,
		United Kingdom.					
1854....	7*d.* in the £ on 150*l.* and upwards; 5*d.* from 100*l.* to 150*l.* Great Britain and Ireland	3,311,	406,	799,	2,236,	379,	7,138,
'55....	1*s.* 2*d.* and 10*d.* ,,	6,716.	805,	1,527,	4,488,	819,	14,358,
'56....	1*s.* 4*d.* ,, 11½*d.* ,,	7,755,	921,	1,718,	5,083,	968,	16,447,
'57....	,,	7,836,	920,	1,889,	5,171,	1,074,	16,892,
'58....	7*d.* to 5*d.* ,,	3,703,	446,	869,	2,392,	502,	7,905,
'59....	5*d.* ,,	2,662,	322,	611,	1,769,	383,	5,750,
1860....	9*d.* to 6½*d.* ,,	4,816,	573,	1,113,	3,217,	712,	10,463,
'61....	10*d.* ,, 7*d.* ,,	5,472,	637,	1,145,	3,613,	758,	11,627,
'62....	9*d.* ,, 6*d.* ,,	5,193,	607,	1,090,	3,390,	708,	10,990,
'63....	,, ,,	5,219,	602,	1,149,	3,544,	733,	11,248,
'64....	7*d.* on 100*l.* upon abatement of 60*l.* on incomes under 200*l*	4,109,	471,	919,	2,923,	573,	9,001,
1865....	5*d.* ,, ...	3,766,	427,	801,	2,752,	511,	8,258,
'66....	4*d.* ,, ...	2,568,	283,	551,	2,002,	358,	5,763,
'67....	4*d.* ,, ...	2,087,	282,	560,	2,636,	361,	5,928,
'68....	5*d.* ,, ...	2,754,	373,	701,	3,353,	458,	7,641,
'69....	6*d.* ,, ...	3,336,	446,	869,	4,039,	552,	9,244,
1870....	5*d.* ,, ...	2,805,	366,	743,	3,465,	503,	7,884,
'71....	4*d.* ,, ...	2,366,	310,	635,	2,935,	411,	6,658,
'72....	6*d.* ,, ...	—	—	—	—	—	—
'73....	4*d.* with abatement on 80*l.* on incomes under 300*l.*	—	—	—	—	—	—
'74....	3*d.* ,, ...	—	—	—	—	—	—

TABLE V.—*Amount of Real Property Assessed.*

	1862.	1871.	Percentage Increase and Decrease.
	£	£	
Land	60,305,000	65,381,000	+ 8·41
Houses	61,924,000	86,412,000	+ 39·54
Mines	4,436,000	5,892,000	+ 32·82
Ironworks	1,079,000	2,701.000	+ 150·0
Railways	14,814,000	21,956,000	+ 48·21
Canals	961,000	775,000	− 19·67
Gasworks	1,317,000	2,605,000	+ 97·79
Quarries	440,000	719,000	+ 63·40
Salt and alum works, docks, drain level, and tolls	2,422,000	2,774,000	+ 14·53
Total	147,698,000	189,215,000	+ 28·16

TABLE VI.—*Number of Persons and Amount of Profits Charged to Income Tax under Schedule D,* 1862 *and* 1872.

Incomes.	1862. Number of Persons Charged.	1862. Amount of Profits Charged. [000's omitted.]	1872. Number of Persons Charged.	1872. Amount of Profits Charged. [000's omitted.]
		£		£
Under 100*l*. a-year	20,025	1,267,	229,206	11,977,
180*l*. and under 200*l*.	188,579	21,353,	82,770	10,635,
200*l*. " 300*l*.	39,483	8,728,	63,547	14,136,
300*l*. " 400*l*.	18,154	5,829,	27,164	8,713,
400*l*. " 500*l*.	8,968	3,749,	13,699	5,722,
500*l*. " 600*l*.	6,820	3,507,	10,598	5,451,
600*l*. " 700*l*.	3,884	2,395,	6,267	3,873,
700*l*. " 800*l*.	2,458	1,792,	3,843	2,799,
800*l*. " 900*l*.	2,186	1,785,	3,430	2,803,
900*l*. " 1,000*l*.	936	868,	1,481	1,387,
1,000*l*. " 2,000*l*.	6,410	8,234,	10,105	12,937,
2,000*l*. " 3,000*l*.	1,965	4,530,	3,113	7,106,
3,000*l*. " 4,000*l*.	991	3,242,	1,521	4,975,
4,000*l*. " 5,000*l*.	507	2,209,	854	3,686,
5,000*l*. " 10,000*l*.	997	6,661,	1,566	10,367,
10,000*l*. " 50,000*l*.	627	11,553,	875	15,276,
50,000*l*. and upwards	69	5,982,	70	5,810,
Total	303,059	93,691,	460,109	127,673,

DISCUSSION *on* PROFESSOR LEVI'S PAPER.

MR. F. P. FELLOWS considered Professor Levi's paper a very valuable one, and that the suggestions contained in it were well worthy of very serious consideration. He must first of all, however, call Professor Levi's attention to a point in the statistics which he thought it would be well to make a note of and correct. In the year ending 31st March, 1842, the total revenue is stated to be a little over 52,000,000*l.*, and in the year ending 31st March, 1873, the gross revenue is stated to be 76,000,000*l.*, and conclusions were drawn from these figures. He would point out, however, that these figures, though correct as taken from the accounts, did not represent the real facts. He (Mr. Fellows) read a paper last year before the British Association at Bradford, in which he went minutely into the taxation and the national debt, year by year, from the revolution of 1688, and he then went into the accuracy of the figures. In 1854 an Act was passed by which the revenue departments, the Customs, the Excise, and the Post Office, had to pay into the Exchequer all the sums they received. The Admiralty and the War Office had also to bring in receipts which they received from certain sources, amounting to upwards of a million. Previous to this Act these revenue departments only paid in what might be called their net earnings, consequently the income of the country, as given before 1854 under that system, would be very much less than under the present system. If the accounts for the last three or four years were looked into, it would be found that the expenses of the Customs, the Excise, and the Post Office, and certain extra receipts of the Admiralty and War Office—the sums which would not have gone into the Exchequer under the old system—would amount to about 8,000,000*l.*; so that the 76,000,000*l.* should be taken in the same way in which the 52,000,000*l.* and all sums previous to 1854 were reckoned. Of course this 8,000,000*l.* would gradually decrease every year down to 1854, until in that year it would be reduced to about 6,000,000*l.*, simply because the revenue and expenses were growing. Adopting the same descending scale, these expenses in 1842 would be about 5,000,000*l.* Instead, therefore, of the sum of 52,000,000*l*—taking the above calculation as correct—under the old system it would be 52,000,000*l.*, under that system, as compared with 68,000,000*l.*; or, taking the present system, it would be about 76,600,000*l.*, as compared with 57,000,000*l.* He had observed that very often even members of parliament and leading papers quoted the figures, and said, "How very greatly our expenditure has increased;" but they forgot that the way in which the accounts were made up really made a difference of 8,000,000*l.* Hence the deductions that Professor Levi made, as the cost per head would also have to be modified in a similar manner. He (Mr. Fellows) thought that the method adopted by the late Government—and which has been adopted for many years—in reckoning the income of the country, was a very correct one. Although the present state of things might justify the anticipation that the revenue would continue to increase year by year as it had increased; still he did not think it prudent and safe that Government should consider that the revenue would always increase as rapidly as it had for some time past. Although there had been a very great increase of trade during the past five or six years, it was a question whether, during the forthcoming years it would increase in the same ratio. Hitherto the difference between estimated income and real income had gone to the reduction of the national debt, which he thought was a very good plan. It was simply because the income of each forthcoming year had been taken as that of the past, that the late Government had been enabled to pay off so much of the national debt.

Mr. J. G. HUBBARD, M.P., said he agreed with Professor Levi in his remarks, that nothing like a scientific method could be found in the system of present taxation. It was the recollection of that fact which ought to make one very anxious at the present juncture to investigate the items of our taxation, and to see whether something like a scientific system could not be introduced. He could not but think that the taxes now imposed were nothing but the residuum of taxes imposed under different exigencies, and remaining after one or other tax had been struck off to meet the popular call of the moment, or a peculiarly favourable position of the national finances. Professor Levi had given an exceedingly interesting and veracious account of the operation and conditions of the income tax, and he had also, with great fidelity, represented what were the main features of the adjustment recommended by him (Mr. Hubbard) several years ago to the House of Commons. That he did not succeed was a matter to which he should allude presently; but he should first of all take the vantage ground of assuming that Professor Levi believed that the Government could not properly do without the income tax. Most articles of primary necessity were now relieved from taxation, and he thought it was a very serious consideration that so large a sum as 20,000,000*l.* was levied simply upon the vicious indulgences of the people. He did not think that was a very satisfactory basis for the taxation of a great country like this. An advance in civilisation and more refined taste should induce the people to restrict their indulgence in drinking brandy and gin and rum, and in smoking tobacco. If such should be the case, what would the Government have to rely upon? Clearly, to his mind, a tax upon income should be maintained. It was not possible in this country, with its very great responsibilities, to confine its sources of revenue to those duties and taxes which exist apart from the income tax. Professor Levi so far admitted that proposition that he proposed that the income tax should be readjusted by continuing the tax upon spontaneous income, and entirely relieving industrial incomes. That proposal he (Mr. Hubbard) thought was wrong, and was impracticable. It would be such a fearful act of favouritism towards those who, although hardly treated now under Schedule D, had no claim to be exempt from taxation, that he could not for a moment suppose that the income tax could exist in that mutilated form. Such a change would except some of the largest fortunes in the country, as some of the wealthiest manufacturers and merchants had the bulk of their capital engaged in floating investments, and the annual value of that capital would be altogether relieved from taxation, if Schedule D was struck out. Such an adjustment of the income tax would neither be accepted by the legislature nor endured by the people. Was it not possible to arrive at some other solution of the difficulty? What was there in the nature of an income tax at variance with our sense of convenience and justice? Taxes could be levied either upon the old system, as excise and custom duties, in which case a man's expenditure regulated his contributions; or they may be levied through the medium of an income tax, in which case his means, before they were applied to his own expenditure, were shared with the State in such proportion as the services of the State required at his hands. Seeing that the purposes for which taxation was applied were matters of primary necessity for the prosperity, well-being, and advancement of the subject. Taxation, so far from being felt as an injustice and a grievance, ought (and, if properly administered, would) be felt to be a blessing, because every man would see, when he was paying his taxes, that he was giving the State a certain portion of his means for the purpose of doing for him that which he could not do for himself. With regard to the several schedules of the income tax maintaining the distinction of spontaneous and industrial incomes, he was quite willing to follow Professor Levi's suggestions so far as regarded the first category. Spontaneous incomes should be dealt with for imperial taxation precisely in the same manner as for local taxation. Last year two rating bills were introduced into the House of Commons. One of them, the Valuation Bill, laid down upon a system of averages, a series of deductions to be taken from the rents of every description of real property, in order to arrive at its effective income for the purpose of taxation. It unfortunately did not pass, but he had no doubt it would be passed shortly, and there would then be a system, which already existed in the matter of house property in the City of London, existing over the whole of the country, as lands, houses, railways, canals, mines, and woods, would come under the operation of assessment. Having done that for local taxation, where was the argument which would refuse the same adjustment of valuation for the purpose of imperial taxation? That which became the income subject to local taxation would become the same for imperial taxation. That adjustment would dispose at once of a very large proportion of incomes now taxed in Schedules A and D. With regard to the adjustment of taxation on industrial incomes there exists no doubt a considerable but not an insuperable difficulty. But when Mr. Levi said that the adjustment of that difficulty is an impossibility, and supported that assertion by saying that the public voice had apparently relinquished it as Mr. Gladstone had declared it impossible. He (Mr. Hubbard) must confess that for the public voice on a scientific question of that kind he had little respect; and he had no doubt that if Mr. Gladstone had shown the slightest portion of goodwill towards the measure he had proposed, it would have been readily adopted by the House of Commons. It had been said that neither Mr. Pitt nor Sir Robert Peel, nor Mr. Gladstone had ever proposed an equitable income tax; but he did not think that because these three great men had neglected to adjust the income tax that it therefore could not be adjusted. He ventured to say that the report of the Income Tax Committee of 1861, of which he was chairman, contained all the elements of adjustment. It was an adjustment which met with the universal approval of the merchants, traders, and professional men of every class who were called to give their opinion upon the proposal. If the measure were satisfactory, would it not also be practicable? Professor Levi had said that the Inland Revenue Commissioners declared it to be impracticable. The two officers of the Inland Revenue Office who at that time had opposed him through thick and thin, certainly declared the arrangement to be impracticable, but before he let these gentlemen leave the witness-box he forced them to admit that the arrangements proposed to meet the difficulties were adequate to the purpose. To explain his scheme of adjustment he had left the chair, and as a witness he submitted to the cross-questioning of Mr. Gladstone, Mr. Lowe, Mr. Cardwell, and Sir Stafford Northcote; and he ventured to say that in those four days' evidence there could not be found a single question that he did not answer satisfactorily. The Committee declined to consider his report, and the essential feature in their own report was the extraordinary declaration that the objections to the income tax were objections to its nature and essence, and therefore could not be remedied. He called that a discreditable statement for any statesman to make in the nineteenth century, and it was one from which he entirely and absolutely differed. He believed that there existed elements of adjustment clear and simple and practicable. Nobody would deny that the pressure of the tax as it stood at present, being levied upon industrial incomes, was unequal in proportion to its pressure upon others; but could that not be remedied? This proposition was to ascertain the proportion of industrial incomes which could be released from taxation in order to establish a just equilibrium. This was a matter requiring a nice discrimination between what was capital and what was interest, between what was the product of a permanent property, and what was the result of industrial efforts. If the able men who took such a decided part against him would take an equal interest in the adjustment of the income tax, they would find the anticipated difficulties vanish in a moment. The determination of the deduction to be made from industrial incomes in order to make them a fair subject of assessment was inevitably to some extent arbitrary, but the scientific conclusions of Dr. Farr closely agree with his (Mr. Hubbard's) computation, that the relative savings out of industrial and spontaneous incomes require a deduction of one-third from the industrial incomes previous to their assessment. To this proposal of one-third every sort of opposition was offered; but he ventured to repeat that the proposal was practicable, and the only difficulty attending the proposal was that there were border cases which would almost appear to merge industrial into spontaneous income. There was, however, no legal difficulty in drawing the line between one class and the other, and the border cases were so few and trifling compared with the multitude requiring to be relieved, that the objection would vanish from the sphere of consideration if an endeavour was really made to adjust this means of revenue. He could not relinquish the belief that an equitable income tax might be devised, and become one of the most convenient and efficient means of raising the revenue of the country.

Mr. GLOVER said he was quite sure the Society would share with him the feeling of the very great obligation they were under to Professor Levi for his admirable paper, also to the honourable member for the City for his equally valuable remarks. In reply to the observations of the latter, he would ask the attention of the Society to the remarkable circumstance that, notwithstanding the alleged ease with which the objections to the income tax under Schedule D could be met, the tax had continued up to the present time with all these injustices and all these inequalities, and that ministers of the greatest financial ability who would have been quite willing to remove the objections alleged against the tax, had replied to deputations that had waited upon them on the subject, that they had carefully examined all the suggested amendments of the income tax, and that, after the most careful examination, they found that these objections could not be removed, and that they would be obliged either to keep the income tax as it was or abolish it altogether. That was the position of the question in January last, as between the country and the Government, when Mr. Gladstone intimated his intention to abolish it. No doubt, as shown by Professor Levi's tables, it was chiefly through the help of the income tax that the amount of taxation on the necessaries of life had been reduced from 19,000,000*l.* in 1842, to 9,000,000*l.* in 1872. This showed what an important instrument of finance it had been. But, on the other hand, the figures before the Society also showed what a small proportion of persons were charged in houses ranging from 10*l.* to 20*l.* per annum. There were only 229,000 persons charged out of nearly 1,500,000 inhabitants of such houses. These figures showed so much evasion of the tax as to justify the allegations made against it. If it were true that there was anything like the amount of fraudulent evasion among the holders of the lower classes of income which these figures seem to indicate, he was of opinion that, in the interests of morality and truth, the tax should cease; this was of itself a sufficient reason to outweigh all that had been said in favour of the continuance of such a form of taxation in a time of prosperity like this. They were not now considering the question of income tax theoretically, but with a bitter recollection of what they had endured for thirty years from its incurable injustice and inequalities, and inquisitorial character. Even under Mr. Hubbard's plan the latter objection would continue, the question would still have to be asked, "How much is your income?" He thought that, as that was a very improper question between gentlemen, it was one which the State ought not to ask its subjects. But when the State has been asking that question for thirty years, and with such results as we see before us, it was high time the State should terminate a form of taxation which conduces to such results. If the inquisitorial character of the tax be continued with any of the suggested reforms, or with any other reconstruction of the tax, it will never be acceptable to the people. It is their wish to keep their secrets and not to be obliged to confess them to the tax collector. Had our financial gains fallen so low that the two, three, or four millions which were wanted to fill up the gap of an income tax could not be provided otherwise, so that the people who had to pay it might be allowed to pay only the tax and not be obliged to part with their secrets as well as their money? There were other objections to the tax to which no allusion had been made that evening, such as taxing income while it was in the very act of growing. The taxpayer was often requested to state the amount of his income before it was earned; accuracy simply impossible. Another reason he had for his objection to the tax was, that it was imposed for certain purposes which had been completely accomplished. When there was a kind of bargain made between the Government and the people, that if they would consent to a certain sort of taxation for a limited period and for definite objects, when these definite objects were accomplished, and the limited period had lasted thirty years, and when all the objections which were then known to exist against that form of taxation still continued, the bargain should not be broken: the tax should cease; the pledge to the patient and willing British taxpayer should be fulfilled, and the disgrace of maintaining a tax, which is admitted to have a direct tendency to demoralise the people, should be terminated. I can only add the expression of my profound regret that the opportunity of abolishing the tax, this year, seems to have been thrown away.

Lord HOUGHTON said he always thought that the question of income tax had always been very much encumbered by its name. The question with which Mr. Hubbard was so very frequently and persistently met during the sitting of his committee was, "You are proposing everything else, but not a tax on income." An income, in its original idea, was to take and suppose the whole income of this country as one integer, and to take a certain proportion for certain advantages to the country. The moment any other consideration was introduced, great and insoluble difficulties were the result. The real difficulty, perhaps, lay in the fact of the income tax being, in a degree, a temporary tax. If this integer was permanent, and it was perfectly understood that, under no circumstances whatever in any lapse of time it was to be interfered with, he thought all the difficulties regarding income tax would be got over, because this property however transient, and that property however durable, would, in the end, pay the same proportion. There could be no doubt that, when it was said an income tax was not to be durable but only to last for five or ten years, there was a great difference between taking the same proportion of money out of the hands of the man whose income would be all spent in those five years, and the income of the man whose capital at the end of five years would remain the same. That was the point in which, he thought, justice had failed. He quite agreed with Mr. Hubbard that there was a sense of injustice, and if the question really was a perfectly legitimate settlement of taxation, it would be very difficult, if not impossible, to keep to the present system. He did not know if he should shock the moral sense of his audience, particularly of the gentleman who spoke last, when he confessed that to his mind there had been secretly an unexpressed thought on the part of the meeting that the amount levied upon these casual and uncertain gains in comparison to what was levied on the certain property of the country, had been levied with an indulgence almost amounting to one-third of the whole, and perhaps by the immoral process the conclusion had been arrived at which Mr. Hubbard desired should be arrived at. If there had been that investigation, that cruel imposition to which the last speaker alluded, the state of things represented could not have lasted. But he believed a certain compromise had been made. He would not go the length of saying that the tax was a premium upon immorality; but he believed there was a sort of fair understanding that the income tax was not to be levied upon property with precisely the same exactitude and care as it was levied upon funds and lands, and it was a great deal upon that consideration that the popularity of the present tax depended. There had been a very curious proof of that in late political events. He thought they would all agree that the proposal to abolish the income tax was not received by the country with the passionate enthusiasm with which the author of the proposition made it; nor did he think that its continuance by the present Government had been met, especially among commercial men, by any very large amount of ill-will. He believed, if the truth were known, that the centre of the popularity of the income tax was the City. Commercial men generally believed it to be a very good and fair mode of taxation. There had been no demand from the great commercial interests of the country for the abolition of the tax from the very beginning. It had been accepted and received with fair good will, and upon the fair economical ground upon which it was originally founded by Sir Robert Peel, with the idea that the certainty of the amount derived from the tax gave great freedom to the springs of general industry. He believed that the income tax, as at present existing in its very moderate proportions, was a sound tax. He believed it would be very unjust—and it would no doubt be felt by Mr. Hubbard himself to be a great injustice—if such persons as his fellow-citizens in the great towns of Yorkshire, who had incomes of some 40,000*l.* or 50,000*l.* a-year, were entirely exempted from taxation. On the whole, he thought that the present system of things was not bad.

Mr. DUDLEY BAXTER hoped that Lord Houghton would not be offended when he said that he was afraid the understanding which Lord Houghton had spoken of, and by which he considered the income tax had become popular, was a sort of tacit understanding that all the industrial income tax payers were to tell "white lies." He did not think there was the popular feeling in regard to the income tax that had been represented. Mr. Glover had grounded his objection to the income tax on a purely sentimental basis. The paper read by Professor Levi was a very able one, but there were one or two points in it from which he was obliged to differ. The discrepancy between the number paying income tax and the people occupying houses was not so great as would at first sight appear. The existence of firms and companies has to be allowed for. Many persons are householders for a great number of years, and never pay income tax as householders, but as members of companies and firms. That of course would make an enormous difference, and would cut away a considerable portion of the argument of fraud. The next point was the amount of taxation. Mr. Fellowes had called attention to the fact that the imperial taxation of the United Kingdom in 1842 was, on our present standard, not 52,000,000*l.* but 57,000,000*l.* as against 76,000,000*l.* now. But besides that there must be added the local taxation, which in 1842 amounted to between 8,000,000*l.* and 9,000,000*l.*, and in the present year it was something like 18,000,000*l.*, making a large discrepancy between the two years. Professor Levi had taken some of his figures out of Mr. Goschen's report, which were plainly inaccurate. In the amount of taxation on real property in the United Kingdom, France, and Belgium, Mr. Goschen made the mistake of taking 160,000,000*l.* as the value of real property in France as corresponding to 175,000,000*l.* in England. But Mr. Goschen did not know that the French valuation omitted all the valuation of the railways. If that were added England would be nearly 4*s.* as against 2*s.* 11*d.* in France. Professor Levi also used the argument that because England paid 30 per cent. of her taxes on real property and 70 per cent. on other property, and because Belgium paid 31 and 69 per cent. that therefore England paid the same proportion on her real property. But that argument could not be used unless the relative amount of real and personal property were ascertained in the two countries. England has 175,000,000*l.* of real property, and 300,000,000*l.* of personal property, and 30 per cent. of its taxation came from real property. Suppose that Belgium had half of real property and half of personal property. The inference from that was not that England had the same taxation as Belgium, but that England had a much heavier taxation on real property than Belgium. He thought that Professor Levi's proposal to abolish all the taxation on industrial incomes would be unjust. Persons with small fixed incomes, with no spring in them and nothing at all to protect them against a rise in prices, would not be exempt, while large professional or trade incomes would not be taxed at all. He also thought that Professor Levi's proposal to take away the taxation from the personal income and put it on to that portion which was really the most heavily taxed at the present moment—the real property—was unjust. Mr. Hubbard's system would be a true one to go upon, if the income tax had been a unique tax. If the facts relating to personal income were investigated, it would be found that it was very slightly taxed by other taxes, and therefore if all the taxes were put together its total was light, and there could be no claim for remission on that particular tax.

LORD HOUGHTON explained that an element of uncertainty was admitted both in the levying and the amount of industrial incomes, which was considered in some degree to place them on a somewhat different foundation to that of absolute or certain income.

Mr. Cornelius Walford thought that the income tax would never be fairly or properly adjusted until it was reduced to one penny. He had no doubt it would produce even more than the present rate, as every body would then be more disposed to make just and fair returns of their incomes.

Mr. Stephen Bourne pointed out to Professor Levi, with regard to the dependence upon spirits alone, that whilst the Chancellor of the Exchequer had estimated a great increase in the duty on spirits in the coming year, the trade returns for March showed, as far as the customs' deliveries for the first three months of the year were concerned, the increase of 1873 over 1872, to have been from 2,106,000 gallons to 2,523,000 gallons, being an increase of 417,000 gallons, or 20 per cent., while in 1874 the increase over 1873 was only 81,000 gallons, or 3 per cent. That did not seen to indicate that there would be kept up a very large increase on the duty of spirits. Possibly the question with regard to the incidence of the income tax would thus derive more importance from the uncertainty of the surplus next year. There was a great difficulty in determining the amount of income derived from spontaneous, as contradistinguished from industrial, income. He thought the proper basis for taxation might be that it should be levied on the *income* arising from realised property, and the *expenditure* of those who derived their income from industrial sources; and for this reason that the income must be either saved or spent, and if saved it would become taxable in future years as realised property. He thought Professor Levi must be in some mistake when he proposed to tax the income derived from dividend at something like double the rate of that upon land. What would be the effect of levying one-tenth per cent. on the *capital* instead of 3*d.* in the pound on the income it produced? He could not also very well see how, if the present house duty of 9*d.* and 6*d.* only amounted to 1,300,000*l.* an average duty of 1*s.* 3*d.* could be expected to realise 3,600,000*l.*

Mr. Francis Saunders thought it was slightly inaccurate for Professor Levi to say that "for local purposes all property was charged, whether productive or not, and for imperial purposes none was taxed but property employed productively." The poor rate only charged occupied property; and then, again, for the purposes of imperial taxation the land tax was chargeable even although the property was empty.

Professor Levi in a few words replied—Mr. Fellows will see that the amount of gross revenue was taken in both cases in 1842 and 1872, and that the rate per head was likewise estimated. As to Mr. Bourne's remarks, the rate suggested for a tax on the funds was suggested at 10*s.* per 1,000, and not at one-tenth per cent., as was erroneously printed. Thanks were awarded to Professor Levi for his paper, and the meeting separated.

STATISTICS *of* DEATHS *by* SUICIDE *among* HER MAJESTY'S BRITISH TROOPS SERVING *at* HOME *and* ABROAD *during the* TEN YEARS 1862-71. *By* W. H. MILLAR, *Statistical Sub-Division, Army Medical Department.*

[Read before the Statistical Society, 19th May, 1874.]

THE returns of mortality among the non-commissioned officers and men of Her Majesty's British troops, furnished to the Army Medical Department during the ten years, 1862 to 1871 inclusive, show that 663 deaths were reported under the head of suicide. As the average annual strength of the white troops serving at home and abroad appears from the same documents to have been 174,700, the deaths by suicide were in the annual ratio of 0·379 per 1,000 of the strength.

The returns published by the Registrar-General show that in the male population in England, between the ages of 20 and 45, during the ten years, 1861-70, the deaths from the same cause were in the annual ratio of 0·107 per 1,000 of living, or less than one-third of the rate prevailing in the army.

The statistical returns of the French army serving at home and abroad during the eight years 1862-69, show the ratio of deaths by suicide to have been 0·49, while in that portion of the force serving in France alone, it was 0·47 per 1,000 of the strength. In the Belgian army, on the average of the two years 1868-69, the deaths from this class were 0·45 per 1,000; in the Prussian army in 1867, they were 0·64; while in the Austro-Hungarian army in 1869 they amounted to 0·85 per 1,000 of the strength.

These results show that while, as compared with that in the civil male population in England at corresponding ages, the ratio was excessively high, it was slightly lower in the British army than in the French or Belgian armies, considerably under the ratio in the Prussian army, and less than half that of the Austro-Hungarian army.

It will be seen, however, that in some respects this comparison with the Registrar-General's returns is not strictly accurate, as more than half of the British troops were during the period on foreign service, and therefore placed under very different circumstances from the male population of similar ages in England. In the following table the men serving in the United Kingdom are separated from those serving in the colonies and in India, and the ratio of suicidal deaths per 1,000 of strength in each is given:—

1862 to 1871 inclusive.	Average Annual Strength.	Deaths by Suicide during 10 Years.	Annual Ratio per 1,000.
White Troops Serving in—			
United Kingdom	76,408	259	0·339
Colonies	38,697	130	0·336
India	59,595	274	0·468

From this table it will be seen that suicide was considerably more prevalent among the troops serving in India than among the other portions of the force, while there was only a small fractional difference in the ratio among those serving at home and in the colonies. The ratio in India was four times, while in the other parts of the force it was three times as great as that among males of similar ages at home.

In the following table the deaths by suicide in each year are shown, distinguishing those among troops at home from those occurring among troops abroad, and the ratio of the total deaths by this class in each year is given:—

Year.	Average Strength.	Deaths by Suicide.			Annual Ratio per 1,000.
		At Home.	Abroad.	Total.	
1862	193,774	21	33	54	0·278
'63	192,611	22	42	64	0·332
'64	186,388	24	56	60	0·321
'65	179,594	21	30	51	0·269
1866	170,015	28	40	68	0·377
'67	169,399	25	45	70	0·413
'68	169,662	36	43	79	0·466
'69	161,788	33	59	92	0·569
1870	153,978	22	35	57	0·370
'71	169,795	27	41	68	0·400

This shows that the highest ratio was reached in the year 1869, when it was 0·569, or 0·190 above the general average for the period, and that the lowest occurred in 1865, when it was only 0·269 or 0·110 below the average. With the exception of the years 1864 and 1865 there appears to have been a steady progressive increase up to 1869; a decrease of more than one-third took place in 1870, while in the year 1871 the ratio did not greatly exceed that of the previous year. Probably there was some connection between the decrease in 1870 and an order issued from the Horse Guards, dated 7th September, 1869, which directed that "Henceforward the "service ammunition of the army is to be removed from the "pouches, and placed in the regimental expense magazines.

The returns of the Registrar-General do not show that any considerable variation took place in the prevalence of suicide among the civil population during the period.

The modes in which suicide was effected in the army are specified in the following table, arranged in the order of the frequency of their occurrence:—

Mode of Suicide.	Total Suicidal Deaths.	Proportion to every 1,000 Deaths by Suicide.
Gunshot	362	546
Cut-throat and wounds	107	161
Drowning	55	83
Hanging	53	80
Poison	47	71
Fracture, contusion, &c.	28	42
Not stated	11	17

More than half the deaths were, therefore, the result of gunshot wounds, while one-sixth were caused by wounds inflicted by cutting weapons (cut-throat in almost every case).

These results contrast in a very marked manner with those of the civil male population of similar ages among whom hanging was the most frequent cause of death, amounting to nearly one-third of the whole, followed by cut-throat, drowning, and poisoning, gunshot wounds causing only one-twelfth of the deaths.

Omitting from the comparison (in consequence of the effect of the order previously referred to) the years 1870 and 1871, the deaths by fire-arms among the troops amounted to 624 out of every 1,000 by suicide, and the decrease in the two years mentioned appears to have been confined to this mode of self-destruction.

It would, therefore, seem that the difference between the military and civil rates is almost entirely due to the use of fire-arms, as, had the suicides by those weapons occurred in the same ratio as among males in civil life, the general results would have been almost identical.

The ratio of deaths at the several ages is shown in the following table, in which the troops serving at home, in the colonies, and in India, are separately stated, the ratio of deaths from all causes being added for the purposes of comparison:—

Annual Ratio per 1,000 of Strength.

1862 to 1871.	Deaths by Suicide.			Deaths by all Causes.		
	At Home.	In Colonies.	In India.	At Home.	In Colonies.	In India.
Ages—						
20 and under 25	0·20	0·21	0·13	5·85	8·57	15·92
25 „ 30	0·39	0·33	0·39	7·84	14·52	22·97
30 „ 35	0·51	0·45	0·84	13·64	16·15	31·06
35 „ 40	0·71	0·81	1·03	19·02	26·89	42·04

The tendency to commit suicide seems, therefore, to have borne the same rate of increase with advancing age as the mortality did among the troops at home, it was rather higher among troops in the colonies at the higher ages, while in India it was more than doubled at each quinquennial period, while the general rate of mortality was only doubled at each decennial period. The returns of the Registrar-General only show the deaths by ages in periods of ten years, but, so far as the comparison is possible, the ratio of increase with advancing age among the troops at home appears to coincide almost exactly with that of the civil population.

The deaths by suicide took place among the different arms of the service at home in the following proportions:—

Arms of Service.	Ratio per 1,000 of Deaths by Suicide.
Household cavalry........................	0·164
Cavalry of line	0·498
Artillery	0·343
Engineers	0·178
Foot Guards	0·209
Infantry	0·309
Departmental corps	0·864

This table shows that (exclusive of the departmental corps) suicide was considerably more prevalent in the cavalry of the line than in any other arm, and lowest in the household cavalry, in which it was only half the rate among the troops generally. In the last group is included the Army Hospital Corps, in which the deaths from suicide were high, more than half of them being from poisoning, a result, possibly, of the free access to poisons which the nature of their duties gives them, but it may, perhaps, only be an irregularity due to the small numbers under observation.

DISCUSSION *on* MR. MILLAR'S PAPER.

DR. FARR said he had listened with great interest to the paper prepared by Mr. Millar, who, in conjunction with Dr. Balfour, had contributed so much to the improvement of army statistics. He thought it was scarcely necessary to do more than call attention to one or two principles which seemed to spring out of the facts. Suicide was one of the most deplorable results that could be contemplated, and was most frequent where the instruments of destruction were most accessible. Chemists and others who had easy access to poison, committed suicide more frequently than other classes of the community. This was borne out by what Mr. Millar said in reference to the departmental corps, where, for instance, suicide was four times as frequent as it was in the Foot Guards, and more than double what it was in the army generally. In the army, until lately, the soldiers had ready means of shooting themselves, which evidently fascinated the men into putting an end to life, and a certain number, under these circumstances, committed suicide who would not have done so if ready means had not been at hand. There had been a sudden reduction in the amount of suicide in the army. In 1869 the number of suicides amounted to 92, in 1870 it fell to 57. Not only suicide, but murder, and shooting officers and others occurred rather frequently, which no doubt led to the order given by the Horse Guards. It was gratifying to observe that, although mortality by suicide had increased in India, it had not increased to the same extent as some other diseases. It would be interesting to know if that was owing to inducements to commit suicide, or to the facilities afforded in that country, and also which of these causes operated most in England. He hoped that Mr. Millar's valuable paper would lead to preventive measures and to the diminution of suicide in the army. He was pleased to find that suicide in the British army was less frequent than in the armies of the continent. Our voluntary system seemed to urge men with less force to commit suicide than the system of recruiting on the continent by conscription.

Dr. MOUAT said, he had seen a good deal of soldiers, and knew something of the causes that had led, particularly in India, to the practice of suicide among them. He had reason to believe that the changes introduced into the internal economy of the army in India, would have some effect in diminishing the number of suicides. The two great causes of the evil seemed to him to be drink, and the absence of occupation. Now, however, that workshops had been established, and the soldiers encouraged to occupy their spare time in industrial pursuits; when new regulations had been made with regard to barrack life, and the routine duties of the soldier had become of a more scientific, elevated, and intellectual character, a different result would doubtless be obtained. He thought that one of the great causes of suicide in the army abroad might be found to be nostalgia—that home-sickness which highlanders and mountaineers especially were so much prone to. They pined after their homes, and fell into a state of melancholy, and, if they were not suitably occupied, would most likely put an end to themselves. In India there was the monotony of the long days and hot nights, which produced an utter restlessness that led to irritability of the system, which was greatly increased by drink. The condition of the soldier was being daily and hourly improved by the military authorities, who were alive to everything connected with his welfare, and in future we should probably hear less frequently of the taking away of valuable life by those who ought to be its defenders; and who, in the past, having few means of killing time, took to killing themselves instead. Military suicides rarely, if ever, occurred in the field, but, he believed, were most frequent after a campaign, when the reaction of idleness set in, and hard drinking was resorted to to replace the stimulus of danger and active exertion.

Mr. Lumley, Q.C., said he should like to ask Mr. Millar whether he thought the ratio had anything to do with the mean temperature of the year; because, on looking at the table, he observed that through serving in India the proportion was very much higher than it was in the United Kingdom and the Colonies.

Sir James Anderson said, that in glancing at the paper he was reminded that he had known, as personal friends, in the mercantile marine, no fewer than eight suicides, who, at the beginning of their career, had as fair a chance in life as himself. He was naturally led to inquire into the cause of such a sad termination to useful lives. Most of those who went to sea had won their way up in life by very hard work, and after a number of years were rewarded by being made captains. From that time the man was no longer supposed to work with his own hands, he must be what was called a "gentleman." He had noticed the gradual downward career of all those friends of whom he spoke, and he was of opinion that if they had been kept at hard work during the balance of their lives, or had had any higher steps in the ladder to climb, or any other opportunities for calling forth the energy which unquestionably was there, they would never have sealed their end by such a sad fate; but this not being their lot, there was, first of all, indolence, then possibly a little drink and smoking to kill the time, first good books and then bad books, and then—the end. He had observed that most of the suicides had occurred at the end of voyages; they happened very seldom where even the ordinary amount of the duties of a captain on a long voyage required attention from him. He did not think that temperature had anything to do with the matter. He might state that in such places as the Persian Gulf, where he used to be stationed for many months of the year, not only were there on record some tremendous illustrations of the most degrading vice, but suicides were of very common occurrence amongst officers as well as men, but more especially the officers. That had resulted from the same cause as Dr. Mouat had already described, and it would be found that the whole of the suicides, either in the army or navy, were attributable to the want of incentives to active lives.

Dr. Farr said it was well worthy of notice that among other inducements to commit suicide, was the use of the razor in shaving. It seemed from the table that 161 soldiers had cut their throats, some of whose lives might have been spared had they worn their beards. He commended this argument to the notice of the favourers of that primitive practice.

Mr. Millar in reply said, that he should like to make it clear that there were no officers included in his figures. They only referred to non-commissioned officers and men. He was gratified to find that Parliament did not scruple to notice cases of death arising from fire-arms in the army. He was not at all sure if the suggestion about temperature had very much to do with the cause of suicide, because, if so, the temperature in India must surely have increased very much during the last few years, as the number of suicides had very much increased. He was inclined to think that the same causes that produced the result in England also operated in India. He thought the large proportion of deaths by suicide among the cavalry regiments could be accounted for from the fact that young men entered those regiments with rather higher hopes than recruits in the other regiments, and the disappointment being greater, they took that way of getting out of the Service.

The ELECTIONS *of* 1868 *and* 1874. *By* JOHN BIDDULPH MARTIN, ESQ.

[Read before the Statistical Society, 19th May, 1874.]

THE wide difference between the circumstances under which the General Elections of 1868 and 1874 took place renders a comparison of their results, so far as they can be ascertained, peculiarly desirable: the former was rendered necessary by the passing, under Mr. Disraeli's ministry, of a Reform Bill, which in itself had occasioned many a parliamentary crisis. As soon as the electoral registers could be revised after the Bill had passed, it was obviously necessary to dissolve a parliament that no longer was representative, the questions which were then before the country being of the greatest interest and gravity. In the very first rank was the question as to the future basis of the Protestant Church in Ireland, the question of reform of the Land Laws in Ireland, of reform in the system of Promotion in the Army, of the Ballot, and of Education throughout the United Kingdom, were points of hardly inferior moment. The election accordingly took place in November, 1868, and the result, in spite of the fact that the political bias of an unexpectedly large proportion of the newly-enfranchised voters proved to be Conservative, was the return as representatives of a majority of at least a hundred members, pledged to the support of all these extensive measures of reform. Never, perhaps, since the passing of the Reform Bill of 1832, had a parliament been assembled under circumstances of greater national interest.

The election of 1874 took place under conditions widely different. Whether the work were well or ill done there might be a difference of opinion; as to the amount of work done there could not be any; but with the passing of every successive measure, the nation appeared to be less and less satisfied with the work of its hands, and to evince its dissatisfaction by the return to Parliament, as opportunity offered, of representatives hostile to the Government. When therefore Mr. Gladstone, after recovering from the shipwreck of the Irish Education Bill in 1873, abruptly dissolved Parliament at the beginning of 1874, the Parliament of 1868 had done its work, and in place of half-a-dozen measures, each in itself sufficient to warrant a dissolution, there was absolutely none before the country. The election addresses of 1868 teemed with promises of support or opposition to coming measures, those of 1874 were full of criticism or defence of measures already passed: the one was essentially prospective, the other as essentially retrospective. On the one hand a great Conservative reaction was asserted to have set in, on the other it was contended that the cry of "Our Party in danger" would at once consolidate the relaxed discipline of the Liberal forces.

It would, therefore, be interesting to ascertain, by an examination of the electoral returns, what the feeling of the nation was. Of the obvious result that instead of the Liberal majority of one hundred in 1868, there was in 1874 a Conservative majority of fifty there could be no doubt; but this bare statement does not in itself explain whether the nation had in those years become weary of sweeping legislative measures, to which it deemed that the term of "harassing" might in justice be applied, and consequently the Conservative ranks had been increased by defections from the Liberal host; or whether the dwindled appearance of the latter was merely due to the absence of stragglers whom the heat of battle had at the former election kept in the ranks; whether, in fact, the nation loved Mr. Disraeli more, or whether it merely loved Mr. Gladstone less.

The accompanying statistical table (A) has, therefore, been drawn up with the view of attempting to throw light on this question, by recording not only the political opinions of the candidates returned, but also the votes by which they were returned, and at the same time the number of unsuccessful candidates, and the number of votes which were bestowed on them. The general result of the table (which has been drawn up from the returns published in the "Times" of 18th November to 3rd December, 1868, and 19th February, 1874; from the "Standard," 23rd February, 1874; from "Hardwick's House of Commons," 1869-73; from "Dod's Parliamentary Companion," and from official returns to the Houses of Parliament) is analysed in Table B, which may be yet further analysed thus:—

TABLE B 1.

	1868.				1874.			
	L.	Liberal Votes.	C.	Conservative Votes.	L.	Liberal Votes.	C.	Conservative Votes.
English boroughs	180	682,355	79	199,243	141	527,756	127	420,503
" counties	32	120,999	83	324,263	17	69,294	61	255,739
England	212	803,354	162	523,506	158	597,050	188	676,242
Scotland	29	107,429	5	2,612	24	104,107	12	28,167
Ireland	26	41,194	12	25,841	56	90,614	26	72,644
	267	951,977	179	551,959	238	791,771	226	777,053
Uncontested seats	118	—	94	—	63	—	125	—
Unrepresented votes	—	470,700	—	354,086	—	586,227	—	311,479
	385	1,422,677	273	906,045	301	1,377,998	351	1,088,532

From this table it results that in 1868 a grand total of 2,328,722 votes was reached; in 1874 this was exceeded by 137,808 votes, the total being 2,466,530, this majority of 137,808 votes being made up by an excess in 1874 of 182,487 Conservative, and a deficiency of 44,679 Liberal votes, and while in 1868 the Liberal majority of 112 was represented by a majority of 516,632 votes, in 1874 the Liberal minority of 50 is still represented by a majority of 289,466 votes: this being obviously due to the large preponderance of Liberal votes in the chief English boroughs, against which the Conservatives in English counties, returning a majority of 81 and 121 members at the respective elections, did not avail to turn the balance of votes, the majority in English counties of 121 in 1874 being returned by a majority of 107,253 votes only. This statement is, however, misleading, in that it includes uncontested seats, and if we regard contested seats only it will appear that in English counties contested at both elections there were given in 1868 188,549 Liberal votes to forty-nine candidates, against 198,306 Conservative votes given to fifty-two candidates; while in 1874 there were in the same constituencies 171,110 Liberal votes given to forty-four candidates, against 238,787 Conservative votes distributed among fifty-three candidates, or a Conservative majority in 1868 of 9,757, in 1874 of 67,677, the Liberals in 1874 showing a falling off of 17,439, and the Conservatives an increase of 40,481 votes. With regard to the candidates who came forward at the two elections we find their numbers and political opinions to have been as follows:—

TABLE C.

	1868.			1874.		
	Liberal.	Conservative.	Total.	Liberal.	Conservative.	Total.
Successful	385	273	658	301	351	652
Unsuccessful	205	172	376	267	153	420
	590	445	1,035	568	504	1,072

being a total in 1874 of thirty-seven in excess of 1868, this total being made up of an excess of fifty-nine Conservative and a deficiency of twenty-two Liberal candidates. This total of thirty-seven would be larger but for the disfranchisement of six seats since 1868, which were occupied by an equal number of either party.

These grand totals, however available for comparison with one another, are not in themselves of much absolute value, for it is obvious that the number of votes is only in a very few cases an index of the number of voters, the discrepancy being greatest in the large English boroughs which return more than two members; this discrepancy is modified by the operation of the minority clause, which at the same time renders it very difficult to judge of the number of voters polled in constituencies under its operation. For this reason it has been deemed unnecessary to take out in every case the number of electors on the register at each election,* but in the following tables an attempt is made to arrive at the proportion of voters to the total electoral strength at each election, in the case of (D) English boroughs returning one member, which were contested at each election by one candidate of either party. These are among the smallest constituencies, and if the Ballot Act could be expected to operate anywhere it would be here that we should expect to find it leave its mark, and further, small boroughs are naturally more closely polled than other constituencies. (E) Large English boroughs, contested by a number of candidates of each party not exceeding the number of seats, the highest number of votes given to a candidate of either party being taken as an index of the strength of the party, a calculation which is perhaps proximately accurate. (F) English and Welsh counties, calculated in the same manner. (G) Scotch counties: (H) Irish boroughs. (I) Irish counties similarly treated: from Scotch boroughs and Irish counties there are not sufficient materials for instituting a comparison. Finally, in Table I these totals are brought together and compared:—

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* With regard to the total number of voters, it appears from the official returns, that there were in 1868 on the registers of English and Welsh Boroughs 1,203,170 voters, of whom 825,519 (= 68½ per cent.) voted: while on the registers for English and Welsh Counties there were 791,916 voters, of whom 405,960 (=51¼ per cent. only) voted. The official return for 1874 has not yet been printed, but on 13th May Mr. Disraeli said in the House of Commons, that he had in his hand a return from which it appeared that there are in English and Welsh Boroughs 1,250,000 voters, and in English and Welsh Counties 800,000 voters on the register, being an increase of 4 per cent. and 1 per cent. respectively. As above stated, there is no official return for Scotland and Ireland.

TABLE D.

	1868.			1874.		
	Electors.	Liberal.	Con-servative.	Electors.	Liberal.	Con-servative.
Andover	775	377	307	758	259	395
Brecon	*814	357	372	822	353	374
Evesham	716	303	346	721	299	346
Guildford	1,220	521	515	1,252	430	673
Helston	1,029	497	374	1,074	470	420
Knaresborough	766	362	347	769	301	397
Lymington	680	199	328	705	158	453
Petersfield	750	363	222	880	361	372
Rye	1,153	499	513	1,265	539	597
Tewkesbury	745	355	279	676	350	323
Thirsk	902	390	416	934	409	410
Wallingford	944	358	453	1,099	437	575
Westbury	1,046	465	492	1,099	540	518
Woodstock	1,127	481	502	1,118	404	569
	12,667	5,527	5,466	13,172	5,310	6,422

* No official return.

TABLE E.

	1868.			1874.		
	Electors.	Liberal.	Con-servative.	Electors.	Liberal.	Con-servative.
Bolton	12,745	5,451	6,062	12,323	5,782	5,987
*Bristol	21,153	8,759	6,694	22,124	8,888	8,522
*Derby	9,240	4,995	2,492	11,011	5,579	3,632
Greenwich	15,588	6,684	4,704	15,990	5,968	6,193
*Halifax	9,328	5,278	2,802	11,948	5,563	3,917
*Newcastle-on-Tyne	18,565	7,057	2,727	21,407	8,064	6,479
*Norwich	13,296	4,509	4,251	14,530	6,138	5,823
Oldham	13,456	6,140	6,116	18,329	8,397	8,582
*Portsmouth	11,597	3,868	5,306	13,671	4,644	5,927
Salford	14,859	6,141	6,312	18,009	6,827	7,003
Southampton	5,437	2,161	2,393	6,525	2,724	2,534
Stockport	5,702	2,658	2,714	7,915	3,628	3,406
*Westminster	18,879	6,584	7,648	20,067	4,749	9,371
*York	9,088	3,279	3,735	9,593	3,880	3,371
	178,933	73,564	63,956	203,442	80,831	80,747

* Indicates cases in which the number of candidates on one or both parties did not at both elections coincide with the number of seats.

TABLE F.

	1868.			1874.		
	Electors.	Liberal.	Conservative.	Electors.	Liberal.	Conservative.
Cardiganshire	5,115	2,074	1,918	4,361	1,635	1,850
Derbyshire, East	5,107	2,089	1,999	4,795	2,206	2,116
*Gloucestershire, West	11,463	4,985	4,394	11,577	4,344	5,530
Kent, West	8,828	3,323	3,440	11,688	3,391	5,295
Lancashire, North-East	8,649	3,463	3,612	9,729	4,401	4,578
*Leicestershire, South	8,308	2,861	3,196	8,405	2,883	3,583
*Middlesex	25,196	6,507	7,850	24,496	5,623	10,343
*Suffolk, East	9,024	3,321	3,650	9,563	3,014	4,136
Surrey, ,,	10,932	4,162	3,557	12,960	4,292	5,673
*Warwickshire, South	6,205	2,472	2,581	6,270	2,170	2,832
*Wilts, North	6,857	2,600	2,769	7,093	2,358	3,195
Yorkshire, West Riding, South	19,205	8,110	7,935	19,247	8,265	9,705
	124,889	45,967	46,901	130,184	44,582	58,836

Note.—The totals of electors are subject to a slight error, in that the official return in all cases includes duplicate qualifications: no official return is made for Scotland or Ireland.

TABLE G.

	1868.			1874.		
	Electors.*	Liberal.	Conservative.	Electors.	Liberal.	Conservative.
Ayrshire, North	3,218	1,397	1,322	3,339	1,301	1,563
Caithness	1,005	512	275	1,178	450	439
Dumfriesshire	2,989	1,100	1,056	3,031	1,315	1,453
Edinburghshire	2,387	1,146	905	2,619	1,059	1,194
Fifeshire	4,206	1,837	1,127	4,314	1,859	1,231
Lanarkshire, South	2,800	1,328	1,107	6,548	1,326	1,347
Perthshire	4,874	2,046	1,767	5,455	2,060	2,554
	21,479	9,366	7,559	26,484	9,370	9,781

* No official return.

TABLE H.

	1868.			1874.		
	Electors.*	Liberal.	Conservative.	Electors.	Liberal.	Conservative.
Bandon	295	141	136	363	180	175
Londonderry	1,488	705	599	1,679	715	747
Newry	796	386	379	940	459	455
Portarlington	134	51	69	136	52	76
Youghal	293	127	106	293	124	106
	3,006	1,410	1,289	3,411	1,530	1,559

TABLE I.

	1868			
	Electors.	Liberals.	Conservative.	Total.
English small boroughs	12,667	5,527	5,466	10,993
„ large „	178,933	73,564	63,956	137,520
„ counties	124,889	45,967	46,901	92,868
Scotch „	*21,479	9,366	7,559	16,925
Irish boroughs	*3,006	1,410	1,289	2,699
	340,974	135,834	125,171	261,005

	1874.			
	Electors.	Liberal.	Conservative.	Total.
English small boroughs	13,172	5,310	6,422	11,732
„ large „	203,442	80,831	80,747	161,578
„ counties	130,184	44,582	58,836	103,418
Scotch „	26,484	9,370	9,781	19,151
Irish boroughs	3,411	1,530	1,559	3,089
	376,693	141,623	157,345	298,968

* No official return.

From these tables it results that, taking the constituencies in which a fair trial of strength took place at each election, there was in every case a larger number of voters in 1874, and this in the following proportions:—

TABLE K.

	Increase per Cent.
In small English boroughs	6½ nearly
„ large „	17½ „
„ English counties	12 „
„ Scotch „	13 „
„ Irish boroughs	11 „
Total increase	14½ „

While, with regard to the strength of the two parties, they had undergone variation during the interval 1868-74, as follows:—

TABLE L.

	Liberal.	Conservative.	Percentage.	
			Liberal.	Conservative.
English boroughs, small	− 217	+ 956	− 9½	+ 18
,, ,, large	+ 7,267	+ 16,791	+ 10	+ 26
,, counties	− 1,385	+ 11,935	− 3	+ 24
Scotch ,, ...	+ 4	+ 2,222	—	+ 29
Irish ,, ...	+ 120	+ 270	+ 9	+ 8½
Total	+ 5,789	+ 32,173	+ 4½	+ 25½

These figures, however, will be subject to modification when it is perceived that (Table I) there was in 1874 a considerable increase in the numbers of electors on the register in every class of constituencies. In order, therefore, to appreciate the true difference in the result of the two elections we must find the proportion of votes polled on each occasion to the total number of electors on the registers, and the distribution of this proportion between the two parties: this will be arrived at by reducing Table I to one of percentages, taking the total of electors on the registers in every case as one hundred:—

TABLE M.

	1868.				1874.			
	Electors.	Liberal.	Conservative.	Total.	Electors.	Liberal.	Conservative.	Total.
English small boroughs	100	44	43	87	100	42	48	90
English large boroughs	100	42	35	77	100	40	39	79
English counties	100	36¾	37½	74¼	100	34	45	79
Scotch ,,	100	44	35	79	100	35	37	72
Irish boroughs	100	47	42	89	100	45	45½	90½
Total	100	39⅔	36⅔	76⅓	100	37⅔	41⅔	79⅓

From which we learn that the numbers who voted in 1874 exceeded by 3 per cent. (as compared with the total electors) those who voted in 1868, and that in every class there was a falling off in the percentage of Liberal electors, and an increase in percentage of Conservatives, the most notable alteration occurring in the English counties, where the Liberals declined 2¾ per cent., and the Conservatives increased 7¾ per cent.

We are left to conjecture how far these variations are due to the operation of the Ballot Act, or to the interest taken by the nation in political affairs at the respective elections; but, it may be observed, that, in small English boroughs, where the Ballot Act might be expected to show the greatest result, and the large English boroughs, where it might be expected to operate least, the percentage of increase is very nearly the same, viz., 3 and 2 per cent. respectively, and the balance of parties also suffers the least variation.

TABLE A.—*English and Welsh Boroughs*

	Unsuccessful Candidates.							
	1868.				1874.			
	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.
Abingdon	1	—	327	—	—	1	—	333
Andover	—	1	—	307	1	—	259	—
Ashton-under-Lyne	1	—	2,109	—	1	—	2,434	—
Aylesbury	1	1	942	1,468	1	—	1,144	—
Banbury	—	1	—	397	—	1	—	676
Barnstaple	1	—	667	—	—	2	—	1,202
Bath	—	1	—	2,024	1	1	2,391	2,348
Beaumaris	1	—	651	—	1	1	255	344
Bedford	—	2	—	1,260	1	—	1,006	—
Berwick	—	2	—	932	1	1	418	330
Bewdley	1	—	418	—	1	1	1	405
Birkenhead	1	—	2,039	—	1	—	1,580	—
Blackburn	2	—	8,563	—	1	1	4,851	5,323
Bodmin	1	—	334	—	1	1	280	113
Bolton	2	—	10,887	—	1	1	5,440	5,650
Boston	2	—	1,975	—	—	2	—	1,675
Bradford	1	—	8,768	—	2	—	16,513	—
Brecon	1	—	357	—	1	—	353	—
Bridgnorth	1	—	497	—	—	1	—	275
Brighton	1	2	432	4,149	2	—	6,481	—
Bristol	—	1	—	6,694	—	2	—	16,148
Buckingham	—	1	—	338	1	—	391	—
Burnley	—	1	—	2,238	—	1	—	2,490
Bury	—	1	—	2,264	—	1	—	2,580
Bury St. Edmunds	1	—	593	—	2	—	1,335	—
Cambridge City	—	2	—	2,825	2	—	3,512	—
Canterbury	—	2	—	1,866	2	—	1,808	—
Cardiff	—	1	—	2,051	—	1	—	2,771
Carlisle	1	1	71	1,957	—	2	—	3,292
Carmarthen	—	1	—	613	1	—	1,481	—
Chatham	—	1	—	1,858	1	—	1,423	—
Chelsea	—	2	—	8,106	2	—	8,668	—
Cheltenham	—	1	—	1,468	1	—	1,842	—
Chester	2	—	2,354	—	1	—	2,125	—
Chippenham	1	—	359	—	1	—	304	—
Christchurch	—	1	—	560	1	—	607	—
Clitheroe	1	—	693	—	1	—	804	—
Cockermouth	—	1	—	388	—	1	—	388
Colchester	—	2	—	2,501	2	—	2,497	—
Coventry	2	—	7,167	—	1	1	3,662	3,628
Cricklade	—	1	—	2,009	3	1	3,710	497
Darlington	1	—	875	—	1	1	1,607	305
Denbigh	—	1	—	944	—	1	—	1,208
Derby	—	1	—	2,492	—	1	—	3,632
Devizes	1	1	321	34	—	2	—	366
Devonport	—	2	—	2,737	2	—	2,560	—
Dewsbury	—	1	—	2,929	1	—	3,272	—
Dover	1	1	35	1,387	2	—	2,180	—
Droitwich	1	—	603	—	—	1	—	401
Durham	—	1	—	732	—	1	—	846

Contested at Both Elections.

Successful Candidates.								
1868.				1874.				
Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	
—	1	—	396	1	—	439	—	Abingdon
1	—	377	—	—	1	—	395	Andover
—	1	—	2,318	—	1	—	2,612	Ashton-under-Lyne
1	1	1,771	1,471	1	1	1,761	1,624	Aylesbury
1	—	772	—	1	—	760	—	Banbury
1	1	791	788	2	—	1,432	—	Barnstaple
2	—	2,730	—	1	1	2,520	2,397	Bath
1	—	941	—	1	—	947	—	Beaumaris
2	—	2,554	—	1	1	1,155	1,010	Bedford
2	—	1,278	—	1	1	617	533	Berwick
—	1	—	518	1	—	504	—	Bewdley
—	1	—	2,935	—	1	—	3,692	Birkenhead
—	2	—	9,867	1	1	5,338	5,532	Blackburn
1	—	424	—	1	—	464	—	Bodmin
—	2	—	11,924	1	1	5,782	5,987	Bolton
—	2	—	2,518	2	—	2,919	—	Boston
2	—	19,065	—	2	—	22,168	—	Bradford
—	1	—	372	—	1	—	374	Brecon
—	1	—	548	1	—	701	—	Bridgnorth
2	—	6,437	—	—	2	—	8,391	Brighton
2	—	17,487	—	2	—	17,620	—	Bristol
1	—	463	—	—	1	—	589	Buckingham
1	—	2,620	—	1	—	3,066	—	Burnley
1	—	2,761	—	1	—	3,061	—	Bury
1	1	703	714	—	2	—	1,918	Bury St. Edmunds
2	—	3,585	—	—	2	—	3,648	Cambridge City
2	—	2,695	—	—	2	—	2,894	Canterbury
1	—	2,501	—	1	—	2,780	—	Cardiff
2	—	4,028	—	2	—	4,235	—	Carlisle
1	—	1,604	—	—	1	—	1,654	Carmarthen
1	—	2,061	—	—	1	—	2,132	Chatham
2	—	14,557	—	1	1	7,217	7,172	Chelsea
1	—	1,648	—	—	1	—	2,121	Cheltenham
1	1	2,275	2,219	1	1	2,134	2,356	Chester
—	1	—	418	—	1	—	531	Chippenham
1	—	609	—	—	1	—	978	Christchurch
—	1	—	760	—	1	—	896	Clitheroe
1	—	620	—	1	—	506	—	Cockermouth
2	—	2,878	—	—	2	—	2,922	Colchester
—	2	—	7,542	1	1	3,799	3,823	Coventry
1	1	2,844	2,452	—	2	—	4,855	Cricklade
1	—	1,789	—	1	—	1,625	—	Darlington
1	—	1,318	—	1	—	1,238	—	Denbigh
2	—	9,834	—	2	—	10,517	—	Derby
—	1	—	385	—	1	—	396	Devizes
2	—	3,060	—	—	2	—	3,008	Devonport
1	—	3,369	—	1	—	3,706	—	Dewsbury
1	1	1,437	1,453	—	2	—	2,911	Dover
—	1	—	781	1	—	787	—	Droitwitch
2	—	1,607	—	2	—	1,803	—	Durham

TABLE A.—*English and Welsh Boroughs*

	Unsuccessful Candidates.							
	1868.				1874.			
	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.
Evesham	1	—	303	—	1	—	299	—
Exeter	—	2	—	4,244	2	—	4,317	—
Finsbury	1	1	1,238	6,137	1	1	3,205	7,737
Frome	—	1	—	476	1	—	557	—
Gateshead	—	1	—	1,387	—	1	—	1,396
Gloucester	—	2	—	3,024	1	1	1,990	1,865
Gravesend	—	1	—	1,069	1	—	1,142	—
Grimsby	1	—	1,328	—	1	—	1,393	—
Greenwich	—	2	—	9,076	1	1	5,255	5,561
Guildford	—	1	—	515	1	—	430	—
Hackney	3	1	11,421	2,633	—	1	—	*6,310
Halifax	—	1	—	2,802	—	1	—	3,917
Hartlepool	1	—	1,547	—	—	1	—	1,395
Hastings	—	2	—	1,840	—	2	—	2,191
Helston	—	1	—	374	—	1	—	420
Hereford	—	2	—	1,855	1	1	903	902
Horsham	—	1	—	380	1	—	329	—
Hull	—	2	—	12,327	—	1	—	7,705
Hythe	—	1	—	521	1	—	300	—
Ipswich	—	1	—	2,044	2	—	4,828	—
Kidderminster	—	1	—	821	1	—	1,319	—
King's Lynn	1	—	1,012	—	2	—	1,894	—
Knaresborough	—	1	—	347	1	—	301	—
Leeds	1	1	5,658	5,621	2	—	17,795	—
Lambeth	—	1	—	7,043	—	1	—	11,201
Leicester	1	—	2,494	—	—	1	—	5,614
Lewes	—	1	—	587	1	—	500	—
Litchfield	1	—	474	—	1	—	440	—
Liverpool	1	—	15,017	—	1	1	15,801	2,435
London	1	2	5,995	12,112	2	—	13,144	—
Lymington	1	—	199	—	1	—	158	—
Macclesfield	—	1	—	2,321	—	2	—	5,000
Maidstone	—	2	—	2,781	—	2	—	2,779
Maldon	—	1	—	504	1	—	590	—
Manchester	2	1	15,898	12,684	1	—	18,727	—
Marylebone	2	1	9,649	3,989	2	—	8,176	—
Merthyr	1	—	5,776	—	1	—	4,912	—
Midhurst	1	—	262	—	1	1	60	185
Monmouth	—	1	—	1,449	1	—	1,447	—
Newark	1	—	826	—	—	2	—	1,647
Newcastle-under-Lyme	1	—	744	—	—	1	—	1,037
Newcastle-on-Tyne	—	1	—	2,727	1	—	5,807	—
Northallerton	1	—	372	—	1	—	379	—
Northampton	2	2	1,578	3,030	2	1	3,449	2,175
Norwich	1	—	4,364	—	1	1	5,776	5,290
Nottingham	3	—	8,751	—	4	—	11,103	—
Oldham	—	2	—	12,200	2	—	16,757	—
Oxford City	—	1	—	1,225	—	1	—	2,198
Pembroke	1	—	1,049	—	—	1	—	1,310
Penryn and Falmouth	2	—	1,208	—	—	2	—	1,389
Peterborough	1	2	834	371	3	1	956	666

* Imperfect Election.

Contested at Both Elections—Contd.

Successful Candidates.								
1868.				1874.				
Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	
—	1	—	346	—	1	—	346	Evesham
2	—	4,571	—	—	2	—	4,853	Exeter
2	—	25,662	—	2	—	19,812	—	Finsbury
1	—	571	—	—	1	—	642	Frome
1	—	2,404	—	1	—	4,250	—	Gateshead
2	—	3,855	—	1	1	2,070	2,132	Gloucester
1	—	1,232	—	—	1	—	1,355	Gravesend
1	—	1,548	—	—	1	—	1,534	Grimsby
2	—	13,070	—	1	1	5,968	6,193	Greenwich
1	—	521	—	—	1	—	673	Guildford
2	—	27,028	—	2	—	*13,861	—	Hackney
2		10,481	—	2	—	11,036	—	Halifax
—	1	—	1,550	1	—	2,308	—	Hartlepool
2	—	1,945	—	2	—	3,216	—	Hastings
1	—	497	—	1	—	470	—	Helston
2	—	2,070	—	1	1	921	978	Hereford
1	—	380	—	—	1	—	529	Horsham
2	—	14,115	—	2	—	17,334	—	Hull
1	—	1,272	—	1	—	1,340	—	Hythe
2	—	4,516	—	—	2	—	5,931	Ipswich
1	—	1,272	—	—	1	—	1,509	Kidderminster
—	2	—	2,375	—	2	—	2,256	King's Lynn
1	—	362	—	—	1	—	397	Knaresborough
2	1	31,036	9,437	1	2	15,390	28,056	Leeds
2	—	29,604	—	2	—	23,963	—	Lambeth
2	—	13,977	—	2	—	14,691	—	Leicester
1	—	601	—	—	1	—	772	Lewes
—	1	—	525	—	1	—	571	Litchfield
1	2	15,337	32,988	1	2	16,706	39,969	Liverpool
3	1	18,993	6,130	1	3	6,787	24,933	London
—	1	—	328	—	1	—	453	Lymington
2	—	5,321	—	2	—	5,965	—	Macclesfield
2	—	3,115	—	2	—	3,049	—	Maidstone
1	—	657	—	—	1	—	632	Maldon
2	1	27,706	15,487	1	2	19,325	39,633	Manchester
2	—	19,226	—	1	1	8,251	9,849	Marylebone
2	—	19,122	—	2	—	14,514	—	Merthyr
—	1	—	375	—	1	—	530	Midhurst
1	—	1,618	—	—	1	—	2,090	Monmouth
2	—	2,106	—	2	—	1,885	—	Newark
1	1	1,081	1,423	1	1	1,116	1,173	Newcastle-under-Lyme
2	—	13,931	—	1	1	8,464	6,479	Newcastle-on-Tyne
—	1	—	386	—	1	—	386	Northallerton
2	—	4,737	—	1	1	2,310	2,670	Northampton
1	1	4,325	4,313	1	1	6,138	5,823	Norwich
2	—	9,876	—	—	2	—	10,058	Nottingham
2	—	12,284	—	—	2	—	17,123	Oldham
2	—	5,401	—	2	—	4,613	—	Oxford City
—	1	—	1,419	1	—	1,330	—	Pembroke
—	2	—	1,335	2	—	1,635	—	Penryn and Falmouth
2	—	3,104	—	2	—	2,240	—	Peterborough

* Imperfect Election.

Table A.—*English and Welsh Boroughs*

	Unsuccessful Candidates.							
	1868.				1874.			
	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.
Petersfield	—	1	—	222	1	—	361	—
Plymouth	—	1	—	1,506	2	—	2,412	—
Pontefract	1	—	680	—	—	1	—	709
Poole	—	1	—	563	—	1	—	580
Portsmouth	1	—	3,785	—	2	—	9,232	—
Preston	2	—	9,320	—	1	—	3,606	—
Reading	—	1	—	976	—	2	—	3,283
Richmond	1	—	87	—	1	—	259	—
Rochdale	—	1	—	3,270	—	1	—	3,998
Rochester	—	1	—	703	—	1	—	835
Rye	1	—	499	—	1	—	539	—
Salford	2	—	12,159	—	2	—	13,536	—
Salisbury	—	1	—	623	1	1	759	783
Sandwich	—	1	—	710	—	2	—	1,375
Scarborough	—	1	—	742	2	—	1,552	—
Sheffield	1	1	9,571	5,272	1	—	10,837	—
Shrewsbury	1	—	685	—	—	2	—	2,707
Southampton	2	—	4,118	—	1	1	2,103	2,345
Southwark	—	1	—	2,495	2	—	6,617	—
Stafford	1	—	1,107	—	1	1	903	947
Stalybridge	1	—	2,078	—	1	—	2,220	—
Stockton	—	1	—	867	—	1	—	1,425
Stockport	1	1	2,598	2,475	—	2	—	6,778
Stroud	—	1	—	2,096	—	2	—	5,430
Sunderland	1	—	3,596	—	—	1	—	3,781
Tamworth	1	—	798	—	2	—	657	—
Tewkesbury	—	1	—	279	—	1	—	323
Thirsk	1	—	390	—	1	—	409	—
Tower Hamlets	2	1	10,050	7,446	3	—	11,216	—
Truro	1	—	406	—	2	—	1,020	—
Wakefield	—	1	—	1,512	1	—	1,595	—
Wallingford	1	—	358	—	1	—	437	—
Wareham	1	1	68	301	1	1	310	26
Warrington	—	1	—	1,957	1	—	2,201	—
Warwick	1	—	260	—	1	1	180	740
Wednesbury	1	1	969	3,779	—	1	—	5,813
Westbury	1	—	465	—	—	1	—	518
Westminster	1	—	6,284	—	2	—	8,184	—
Weymouth	1	—	452	—	—	1	—	452
Whitby	—	1	—	518	—	1	—	754
Wigan	—	2	—	3,795	3	—	4,046	—
Winchester	1	—	548	—	1	—	649	—
Windsor	—	1	—	795	1	—	618	—
Woodstock	1	—	481	—	1	—	404	—
Worcester	2	—	2,855	—	—	2	—	3,630
Wycombe	1	—	500	—	1	1	415	19
York	1	—	3,038	—	—	1	—	2,830
	97	107	228,239	222,946	134	91	328,910	189,632

Contested at Both Elections—Contd.

Successful Candidates.								
1868.				1874.				
Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	
1	—	363	—	—	1	—	372	Petersfield
2	—	5,151	—	—	2	—	4,045	Plymouth
1	1	913	900	1	1	934	861	Pontefract
—	1	—	623	1	—	705	—	Poole
1	1	3,715	5,316	—	2	—	11,863	Portsmouth
—	2	—	10,503	—	2	—	11,573	Preston
2	—	3,247	—	2	—	3,585	—	Reading
1	—	375	—	1	—	313	—	Richmond
1	—	4,455	—	1	—	4,498	—	Rochdale
2	—	2,764	—	2	—	2,350	—	Rochester
—	1	—	513	—	1	—	597	Rye
—	2	—	12,493	—	2	—	13,990	Salford
2	—	1,428	—	1	1	800	835	Salisbury
2	—	1,855	—	2	—	2,041	—	Sandwich
2	—	3,504	—	1	1	1,103	1,280	Scarborough
2	—	26,988	—	2	—	26,544	—	Sheffield
1	1	1,840	1,751	2	—	3,196	—	Shrewsbury
—	2	—	5,571	1	1	2,724	2,534	Southampton
2	—	11,935	—	1	1	5,901	5,716	Southwark
1	1	1,189	1,124	1	1	1,183	1,238	Stafford
—	1	—	2,407	—	1	—	2,378	Stalybridge
1	—	2,476	—	1	—	3,233	—	Stockton
1	1	2,658	2,714	2	—	7,166	—	Stockport
2	—	5,712	—	2	—	5,592	—	Stroud
2	—	11,138	—	2	—	12,092	—	Sunderland
2	—	1,959	—	1	1	1,089	1,086	Tamworth
1	—	355	—	1	—	350	—	Tewkesbury
—	1	—	416	—	1	—	410	Thirsk
2	—	17,688	—	1	1	5,900	7,228	Tower Hamlets
1	1	683	731	—	2	—	1,518	Truro
1	—	1,558	—	—	1	—	1,783	Wakefield
—	1	—	453	—	1	—	575	Wallingford
1	—	314	—	—	1	—	502	Wareham
1	—	1,984	—	—	1	—	2,381	Warrington
1	1	873	863	1	1	783	836	Warwick
1	—	6,129	—	1	—	7,530	—	Wednesbury
—	1	—	492	1	—	540	—	Westbury
1	1	6,584	7,648	—	2	—	18,052	Westminster
1	1	659	725	1	1	944	504	Weymouth
1	—	894	—	1	—	873	—	Whitby
2	—	4,385	—	—	2	—	4,994	Wigan
1	1	691	828	—	2	—	1,842	Winchester
1	—	803	—	—	1	—	1,064	Windsor
—	1	—	502	—	1	—	569	Woodstock
1	1	2,063	2,439	2	—	4,448	—	Worcester
1	—	701	—	1	—	953	—	Wycombe
1	1	3,279	3,735	1	1	3,880	3,371	York
169	67	628,331	191,543	120	116	463,809	401,876	

Table A.—*English and Welsh Boroughs*

	Unsuccessful Candidates.							
	1868.				1874.			
	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.
Beverley	2	—	1,637	—	—	—	—	—
Birmingham	—	2	—	15,821	—	—	—	—
Bridgwater	—	2	—	1,331	—	—	—	—
Carnarvon	—	1	—	1,051	—	—	—	—
Chichester	1	—	433	—	—	—	—	—
Cirencester	1	—	284	—	—	—	—	—
Dorchester	—	—	—	—	1	—	233	—
Dudley	—	—	—	—	—	1	—	4,181
Flint Boroughs	—	—	—	—	1	1	792	1,072
Grantham	—	—	—	—	1	—	899	—
Harwich	1	—	141	—	—	—	—	—
Haverfordwest	—	1	—	497	—	—	—	—
Hertford	1	—	345	—	—	—	—	—
Huddersfield	—	—	—	—	—	1	—	4,985
Kendal	—	—	—	—	—	1	—	470
Launceston	—	—	—	—	1	—	217	—
Leominster	1	—	174	—	—	—	—	—
Lincoln	—	—	—	—	1	—	1,784	—
Liskeard	—	—	—	—	1	—	329	—
Ludlow	1	—	170	—	—	—	—	—
Malmesbury	1	—	314	—	—	—	—	—
Malton	—	—	—	—	—	1	—	473
Marlow	1	—	314	—	—	—	—	—
Middlesbrough	—	—	—	—	1	1	1,541	956
Morpeth	—	—	—	—	—	1	—	585
Newport	—	—	—	—	—	1	—	475
Radnor	—	—	—	—	—	1	—	162
Ripon	—	1	—	408	—	—	—	—
St. Ives	—	—	—	—	1	—	432	—
Shaftesbury	—	—	—	—	1	—	562	—
Shoreham	—	—	—	—	1	—	898	—
Shields	—	1	—	2,277	—	—	—	—
Stamford	—	—	—	—	1	—	411	—
Stoke	—	—	—	—	2	—	10,567	—
Swansea	—	—	—	—	—	1	—	2,708
Taunton	—	1	—	890	—	—	—	—
Tiverton	—	—	—	—	—	1	—	605
Tavistock	—	—	—	—	1	—	273	—
Tynemouth	—	1	—	710	—	—	—	—
Walsall	—	—	—	—	—	1	—	1,721
Wenlock	—	—	—	—	1	—	846	—
Wolverhampton	—	—	—	—	—	1	—	3,628
Whitehaven	1	—	771	—	—	—	—	—
	11	10	4,583	22,985	15	13	19,784	22,021

Contested at One Election only.

Successful Candidates.								
1868.				1874.				
Liberal.	Con-servative.	Liberal Votes.	Con-servative Votes.	Liberal.	Con-servative.	Liberal Votes.	Con-servative Votes.	
—	2	—	2,118	—	—	Disfran	chised.	Beverley
3	—	44,313	—	3	—	—	—	Birmingham
2	—	1,456	—	—	—	Disfran	chised.	Bridgwater
1	—	1,963	—	1	—	—	—	Carnarvon
—	1	—	603	—	1	—	—	Chichester
—	1	—	629	—	1	—	—	Cirencester
—	1	—	—	—	1	—	353	Dorchester
1	—	—	—	1	—	5,149	—	Dudley
1	—	—	—	1	—	1,076	—	Flint Boroughs
2	—	—	—	1	1	1,055	965	Grantham
—	1	—	328	—	1	—	—	Harwich
1	—	638	—	1	—	—	—	Haverfordwest
—	1	—	434	—	1	—	—	Hertford
1	—	—	—	1	—	5,668	—	Huddersfield
1	—	—	—	1	—	1,061	—	Kendal
—	1	—	—	—	1	—	454	Launceston
—	1	—	432	—	1	—	—	Leominster
2	—	—	—	1	1	1,907	2,107	Lincoln
1	—	—	—	1	—	334	—	Liskeard
—	1	—	435	—	1	—	—	Ludlow
—	1	—	337	—	1	—	—	Malmesbury
1	—	—	—	1	—	603	—	Malton
—	1	—	345	—	1	—	—	Marlow
1	—	—	—	1	—	3,717	—	Middlesbrough
1	—	—	—	1	—	3,332	—	Morpeth
1	—	—	—	1	—	522	—	Newport
1	—	—	—	1	—	612	—	Radnor
1	—	554	—	1	—	—	—	Ripon
1	—	—	—	—	1	—	751	St. Ives
1	—	—	—	—	1	—	591	Shaftesbury
—	2	—	—	—	2	—	4,941	Shoreham
1	—	2,582	—	1	—	—	—	Shields
—	1	—	—	—	1	—	577	Stamford
2	—	—	—	1	1	6,700	6,180	Stoke
1	—	—	—	1	—	5,215	—	Swansea
1	1	1,099	914	2	—	—	—	Taunton
2	—	—	—	2	—	1,306	—	Tiverton
1	—	—	—	1	—	362	—	Tavistock
1	—	1,098	—	1	—	—	—	Tynemouth
1	—	—	—	1	—	3,364	—	Walsall
1	1	—	—	1	1	1,570	1,708	Wenlock
2	—	—	—	2	—	20,394	—	Wolverhampton
—	1	—	1,125	—	1	—	—	Whitehaven
37	18	53,703	7,700	31	20	63,947	18,627	

TABLE A.—*English and Welsh Counties*

	Unsuccessful Candidates.							
	1868.				1874.			
	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.
Cardiganshire	—	1	—	1,918	1	—	1,635	—
Carmarthenshire	—	2	—	4,168	2	—	5,130	—
Carnarvonshire	—	1	—	1,815	1	—	2,318	—
Cumberland, East	1	—	2,398	—	—	1	—	2,622
Derbyshire, South	2	—	6,818	—	—	1	—	3,572
,, East	—	2	—	3,969	1	1	2,017	2,067
Durham, North	1	—	3,822	—	—	2	—	7,512
,, South	—	2	—	6,961	—	1	—	3,897
Gloucestershire, West	—	1	—	4,394	1	—	4,317	—
Hants, South	1	1	2,726	2,716	1	—	2,382	—
Hertfordshire	—	1	—	3,370	1	—	2,964	—
Kent, East	2	—	9,264	—	1	—	4,308	—
,, Mid	2	—	5,740	—	1	—	2,956	—
,, West	2	—	6,519	—	2	—	6,747	—
Lancashire, North-east	2	—	6,904	—	2	—	8,698	—
,, South-east	2	—	13,971	—	2	—	14,917	—
Leicestershire, North	—	1	—	1,750	1	—	1,997	—
,, South	1	—	2,861	—	1	—	2,883	—
Middlesex	1	—	6,397	—	2	—	10,815	—
Norfolk, South	1	—	1,679	—	1	—	2,699	—
Suffolk, East	2	—	6,366	—	1	—	3,014	—
Surrey ,,	—	2	—	7,107	2	—	8,407	—
Warwickshire, North	2	—	6,733	—	1	—	3,189	—
,, South	2	—	4,925	—	1	—	2,170	—
Wight, Isle of	—	1	—	1,118	1	—	1,604	—
Wilts, North	1	—	2,016	—	1	—	2,358	—
Worcestershire, East	1	—	3,789	—	2	1	5,539	55
Yorkshire, West Riding, East	2	—	13,914	—	2	—	14,503	—
Yorkshire, West Riding, South	—	2	—	15,556	2	—	16,413	—
	28	17	106,842	54,842	34	7	133,980	19,725

Contested at Both Elections—Contd.

Successful Candidates.								
1868.				1874.				
Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	
1	—	2,074	—	—	1	—	1,850	Cardiganshire
1	1	3,280	2,942	—	2	—	6,650	Carmarthenshire
1	—	1,963	—	—	1	—	2,750	Carnarvonshire
1	1	2,621	2,546	1	1	2,943	2,629	Cumberland, East
—	2	—	7,176	1	1	3,773	3,934	Derbyshire, South
2	—	4,122	—	1	1	2,206	2,116	„ East
2	—	8,660	—	2	—	8,691	—	Durham, North
2	—	8,342	—	2	—	9,253	—	„ South
2	—	9,839	—	1	1	4,344	5,530	Gloucestershire, West
1	1	2,797	2,756	1	1	2,946	3,878	Hants, South
2	1	7,318	3,396	1	2	2,974	8,997	Hertfordshire
—	2	—	10,313	—	2	—	10,829	Kent, East
—	2	—	6,490	—	2	—	7,252	„ Mid
—	2	—	6,818	—	2	—	10,525	„ West
—	2	—	7,230	—	2	—	9,066	Lancashire, North-east
—	2	—	16,202	—	2	—	18,202	„ South-east
—	2	—	6,388	—	2	—	5,546	Leicestershire, North
—	2	—	6,307	—	2	—	6,852	„ South
1	1	6,507	7,850	—	2	—	20,210	Middlesex
—	2	—	6,152	—	2	—	6,156	Norfolk, South
—	2	—	7,270	—	2	—	8,032	Suffolk, East
—	2	—	8,103	—	2	—	11,252	Surrey, East
—	2	—	8,919	—	2	—	8,994	Warwickshire, North
—	2	—	5,078	—	2	—	5,633	„ South
1	—	1,353	—	—	1	—	1,614	Wight, Isle of
1	1	2,685	2,758	—	2	—	6,324	Wiltshire, North
1	1	4,093	4,198	—	2	—	8,580	Worcestershire, East
—	2	—	14,572	—	2	—	16,317	Yorkshire, West Riding, East
2	—	16,053	—	—	2	—	19,344	Yorkshire West Riding, South
21	35	81,707	143,464	10	46	37,130	219,062	

Table A.—*English and Welsh Counties*

	Unsuccessful Candidates.							
	1868.				1874.			
	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.
Anglesea	—	—	—	—	—	1	—	843
Berks	1	—	2,450	—	—	—	—	—
Breconshire	—	—	—	—	1	—	1,036	—
Bucks	—	—	—	—	—	1	—	151
Cambridgeshire	2	—	6,590	—	—	—	—	—
Cheshire, Mid	1	—	2,482	—	—	—	—	—
Cornwall, East	—	—	—	—	1	1	2,978	3,099
Cumberland, West	—	—	—	—	2	—	3,557	—
Denbighshire	1	—	2,412	—	—	—	—	—
Derbyshire, North	1	—	2,637	—	—	—	—	—
Devonshire, North	—	1	—	3,520	—	—	—	—
" South	1	—	2,694	—	—	—	—	—
" East	1	—	3,457	—	—	—	—	—
Essex, East	2	—	4,358	—	—	—	—	—
" South	—	—	—	—	2	—	5,463	—
Glamorganshire	—	—	—	—	—	1	—	3,353
Herefordshire	1	—	1,878	—	—	—	—	—
Huntingdonshire	—	—	—	—	1	—	1,192	—
Lancashire, North	1	—	5,296	—	—	—	—	—
" South-west	2	—	14,354	—	—	—	—	—
Lincolnshire, South	1	—	2,714	—	—	—	—	—
Monmouthshire	1	—	2,338	—	—	—	—	—
Norfolk, North	2	—	4,323	—	—	—	—	—
Northamptonshire, South	1	—	2,305	—	—	—	—	—
Radnorshire	—	—	—	—	1	—	100	—
Salop, North	1	—	2,410	—	—	—	—	—
" South	1	—	2,161	—	—	—	—	—
Somersetshire, East	2	—	5,460	—	—	—	—	—
" Mid	1	—	4,169	—	—	—	—	—
Staffordshire, West	2	—	6,539	—	—	—	—	—
" East	—	1	—	2,792	—	—	—	—
Suffolk, West	1	—	1,705	—	—	—	—	—
Surrey, Mid	3	—	6,249	—	—	—	—	—
" West	1	—	1,757	—	—	—	—	—
Sussex, East	1	1	3,470	3,560	—	—	—	—
Wilts, South	—	—	—	—	1	—	1,048	—
Worcestershire, West	—	—	—	—	1	—	1,540	—
Yorkshire, North	—	1	—	1,721	—	—	—	—
" East	1	—	2,603	—	—	—	—	—
" West, North	—	—	—	—	—	2	—	15,545
	33	4	96,811	11,593	10	6	16,914	22,991

Contested at One Election only—Contd.

Successful Candidates.								
1868.				1874.				
Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	
1	—	—	—	1	—	1,630	—	Anglesea
1	2	2,747	6,402	1	2	—	—	Berks
—	1	—	—	—	1	—	1,594	Breconshire
1	2	—	—	1	2	1,720	5,906	Bucks
1	2	3,330	7,872	1	2	—	—	Cambridgeshire
—	2	—	6,128	—	2	—	—	Cheshire, Mid
—	2	—	—	1	1	3,395	3,276	Cornwall, East
—	2	—	—	—	2	—	5,052	Cumberland, West
1	1	2,711	3,410	1	1	—	—	Denbighshire
1	1	2,[illegible]03	2,698	1	1	—	—	Derbyshire, North
1	1	3,898	3,987	1	1	—	—	Devonshire, North
—	2	—	6,467	—	2	—	—	" South
—	2	—	1,840	—	2	—	—	" East
—	2	—	5,677	—	2	—	—	Essex, East
2	—	—	—	—	2	—	7,274	" South
2	—	—	—	2	—	8,140	—	Glamorganshire
1	2	2,273	6,692	1	2	—	—	Herefordshire
—	2	—	—	—	2	—	3,130	Huntingdonshire
—	2	—	13,513	—	2	—	—	Lancashire, North
—	2	—	15,405	—	2	—	—	" South-west
—	2	—	8,592	—	2	—	—	Lincolnshire, South
—	2	—	7,286	—	2	—	—	Monmouthshire
—	2	—	5,193	—	2	—	—	Norfolk, North
—	2	—	5,027	—	2	—	—	Northamptonshire, South
—	1	—	—	—	1	—	889	Radnorshire
—	2	—	6,815	—	2	—	—	Salop, North
—	2	—	5,217	—	2	—	—	" South
—	2	—	7,735	—	2	—	—	Somersetshire, East
—	2	—	7,328	—	2	—	—	" Mid
—	2	—	7,687	—	2	—	—	Staffordshire, West
2	—	7,564	—	1	1	—	—	" East
—	2	—	4,773	—	2	—	—	Suffolk, West
—	2	—	8,899	—	2	—	—	Surrey, Mid
1	1	2,826	3,000	—	2	—	—	" West
1	1	3,611	3,581	—	2	—	—	Sussex, East
1	1	—	—	—	2	—	4,092	Wilts, South
—	2	—	—	—	2	—	5,464	Worcestershire, West
1	1	7,429	7,689	1	1	—	—	Yorkshire, North
—	2	—	11,886	—	2	—	—	" East
2	—	—	—	2	—	17,279	—	" West, N.
20	61	39,292	180,799	15	66	32,164	36,677	

TABLE A.—*Scotch Boroughs Contested*

	Unsuccessful Candidates.							
	1868.				1874.			
	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.
Ayr Burghs	1	—	1,025	—	1	—	1,683	—
Dumfries	1	—	1,083	—	—	1	—	1,123
Dundee	2	—	5,633	—	2	1	6,632	573
Falkirk Burghs	1	—	16	—	—	1	—	1,958
Glasgow City	—	1	—	10,814	2	—	11,897	12,533
Kilmarnock	2	—	2,147	—	1	—	3,019	—
Leith	1	—	1,995	—	1	—	1,945	—
Montrose Burghs	—	1	—	1,027	—	1	—	1,875
Wick	1	—	635	—	1	—	730	—
Wigton Burghs	—	1	—	364	1	—	520	—
	9	3	12,534	12,205	9	4	26,426	18,062

Scotch Boroughs Contested

	Unsuccessful Candidates.							
	1868.				1874.			
	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.
Aberdeen	—	—	—	—	—	1	—	2,724
Clackmannan	—	—	—	—	—	1	—	468
Edinburgh City	—	—	—	—	1	1	6,218	5,713
,, University	—	1	—	2,067	—	—	—	—
Glasgow University	—	1	—	2,020	—	—	—	—
Greenock	1	—	2,093	—	—	—	—	—
Inverness	—	—	—	—	2	—	895	—
Kirkaldy	—	—	—	—	—	1	—	1,228
Paisley	1	1	921	421	—	—	—	—
Perth	—	—	—	—	—	1	—	946
Stirling	1	—	1,682	—	—	—	—	—
	3	3	4,696	4,508	3	5	7,113	11,079

at Both Elections—Contd.

Successful Candidates.								
1868.				1874.				
Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	
1	—	1,116	—	—	1	—	1,697	Ayr Burghs
1	—	1,100	—	1	—	1,420	—	Dumfries
2	—	15,399	—	2	—	12,643	—	Dundee
1	—	1,724	—	1	—	2,583	—	Falkirk Burghs
3	—	53,442	—	2	1	36,357	14,134	Glasgow City
1	—	2,892	—	1	—	3,316	—	Kilmarnock
1	—	2,916	—	1	—	4,489	—	Leith
1	—	3,199	—	1	—	3,333	—	Montrose Burghs
1	—	484	—	1	—	857	—	Wick
1	—	850	—	—	1	—	522	Wigton Burghs
13	—	83,122	—	10	3	64,998	16,353	

at One Election Only.

Successful Candidates.								
1868.				1874.				
Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	
1	—	—	—	1	—	3,910	—	Aberdeen
1	—	—	—	1	—	964	—	Clackmannan
2	—	—	—	2	—	20,180	—	Edinburgh City
1	—	2,322	—	1	—	—	—	,, University
1	—	2,067	—	—	1	—	—	Glasgow University
1	—	2,962	—	1	—	—	—	Greenock
1	—	—	—	1	—	1,134	—	Inverness
1	—	—	—	1	—	1,967	—	Kirkaldy
1	—	1,576	—	1	—	—	—	Paisley
1	—	—	—	1	—	1,648	—	Perth
1	—	2,201	—	1	—	—	—	Stirling
12	—	11,128	—	11	1	29,803	—	

TABLE A.—*Scotch Counties Contested*

	Unsuccessful Candidates.							
	1868.				1874.			
	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.
Ayr, North	—	1	—	1,322	1	—	1,301	—
Caithness	—	1	—	275	—	1	—	439
Dumfriesshire	—	1	—	1,056	1	—	1,315	—
Edinburghshire	—	1	—	905	1	—	1,059	—
Fifeshire	—	1	—	1,127	—	1	—	1,231
Kirkudbrightshire	1	—	703	—	—	1	—	831
Lanarkshire, South	—	1	—	1,107	1	—	1,326	—
Roxburghshire	1	—	610	—	1	—	763	—
Perthshire	—	1	—	1,767	1	—	2,060	—
	2	7	1,313	7,559	6	3	7,824	2,501

Scotch Counties Contested

	Unsuccessful Candidates.							
	1868.				1874.			
	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.
Ayr, South	—	1	—	1,391	—	—	—	—
Aberdeen, West	—	—	—	—	—	1	—	326
Berwickshire	—	—	—	—	1	—	647	—
Buteshire	1	—	362	—	—	—	—	—
Dumbartonshire	—	—	—	—	1	—	942	—
Elgin and Nairn	—	—	—	—	—	1	—	619
Haddingtonshire	1	—	340	—	—	—	—	—
Kincardineshire	—	—	—	—	—	1	—	553
Linlithgowshire	1	—	385	—	—	—	—	—
Orkney and Shetland	—	1	—	446	—	—	—	—
Renfrewshire	—	—	—	—	—	1	—	1,903
Selkirkshire	1	—	358	—	—	—	—	—
Stirlingshire	—	—	—	—	1	—	1,127	—
Wigtonshire	1	—	652	—	—	—	—	—
	5	2	2,097	1,837	3	4	2,716	3,401

at Both Elections—Contd.

Successful Candidates.								
1868.				1874.				
Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	
1	—	1,397	—	—	1	—	1,563	Ayr, North
1	—	512	—	1	—	450	—	Caithness
1	—	1,100	—	—	1	—	1,453	Dumfriesshire
1	—	1,146	—	—	1	—	1,194	Edinburghshire
1	—	1,837	—	1	—	1,859	—	Fifeshire
1	—	932	—	1	—	835	—	Kirkudbrightshire
1	—	1,328	—	—	1	—	1,347	Lanarkshire, South
1	—	750	—	—	1	—	789	Roxburghshire
1	—	2,046	—	—	1	—	2,554	Perthshire
9	—	11,048	—	3	6	3,144	8,900	

at One Election only.

Successful Candidates.								
1868.				1874.				
Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	
1	—	1,416	—	—	1	—	—	Ayr, South
1	—	—	—	1	—	2,401	—	Aberdeen, West
1	—	—	—	—	1	—	748	Berwickshire
—	1	—	527	—	1	—	—	Buteshire
—	1	—	—	—	1	—	995	Dumbartonshire
1	—	—	—	1	—	829	—	Elgin and Nairn
—	1	—	405	—	1	—	—	Haddingtonshire
1	—	—	—	1	—	941	—	Kincardineshire
—	1	—	600	1	—	—	—	Linlithgowshire
1	—	715	—	1	—	—	—	Orkney and Shetland
1	—	—	—	1	—	1,991	—	Renfrewshire
—	1	—	361	—	1	—	—	Selkirkshire
1	—	—	—	—	1	—	1,171	Stirlingshire
—	1	—	719	—	1	—	—	Wigtonshire
8	6	2,131	2,612	6	8	6,162	2,914	

TABLE A (*contd.*)—*Irish Boroughs*

	Unsuccessful Candidates.							
	1868.				1874.			
	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.
Athlone	1	1	1	111	1	—	140	—
Bandon	—	1	—	136	—	1	—	175
Belfast	—	2	—	5,020	2	—	4,602	—
Carrickfergus	—	1	—	407	—	1	—	452
Cork	—	2	—	756	2	1	1,608	1,191
Drogheda	1	1	30	138	1	—	274	—
Dublin City	1	1	5,379	5,452	2	—	2,487	—
Dungarvan	1	—	105	—	1	—	115	—
Dundalk	2	—	215	—	1	—	225	—
Enniskillen	1	1	141	1	1	—	172	—
Galway	1	1	432	213	1	—	449	—
Limerick	1	1	720	187	2	1	536	557
Londonderry	—	1	—	599	1	—	715	—
Newry	—	1	—	379	—	1	—	455
Portarlington	1	—	51	—	1	—	52	—
Waterford	1	—	439	—	2	1	520	365
Youghal	—	1	—	106	—	1	—	106
	11	15	7,513	13,505	18	7	11,895	3,301

TABLE A (*contd.*)—*Irish Boroughs*

	Unsuccessful Candidates.							
	1868.				1874.			
	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.
Armagh	—	—	—	—	1	—	214	—
Cashel	—	1	—	84	—	—	—	—
Carlow	—	1	—	150	—	—	—	—
Coleraine	—	—	—	—	—	1	—	160
Dublin University	1	1	216	743	—	—	—	—
Dungannon	—	—	—	—	—	1	—	109
Ennis	—	—	—	—	1	—	99	—
Kinsale	—	—	—	—	—	1	—	47
Mallow	—	—	—	—	2	1	73	27
New Ross	—	—	—	—	—	1	—	81
Sligo	1	—	229	—	—	—	—	—
Tralee	—	—	—	—	1	—	139	—
Wexford	—	—	—	—	—	1	—	73
	2	3	445	977	5	6	525	497

Contested at Both Elections.

Successful Candidates.								
1868.				1874.				
Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	
1	—	154	—	1	—	140	—	Athlone
1	—	141	—	1	—	180	—	Bandon
1	1	4,202	5,975	—	2	—	16,588	Belfast
1	—	669	—	1	—	628	—	Carrickfergus
2	—	3,757	—	2	—	3,560	—	Cork
1	—	371	—	1	—	284	—	Drogheda
1	1	5,586	5,587	1	1	4,838	5,213	Dublin City
1	—	155	—	1	—	131	—	Dungarvan
1	—	164	—	1	—	257	—	Dundalk
—	1	—	171	—	1	—	192	Enniskillen
2	—	1,607	—	1	1	606	761	Galway
2	—	1,820	—	2	—	1,704	—	Limerick
1	—	705	—	—	1	—	747	Londonderry
1	—	387	—	1	—	459	—	Newry
—	1	—	69	—	1	—	76	Portarlington
2	—	1,378	—	2	—	1,016	—	Waterford
1	—	127	—	—	1	—	124	Youghal
19	4	21,223	11,802	15	8	13,803	23,701	

Contested at One Election only.

Successful Candidates.								
1868.				1874.				
Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	
—	1	—	—	—	1	—	325	Armagh
1	—	100	—	—	—	Disfranchised	—	Cashel
1	—	174	—	1	—	—	—	Carlow
—	1	—	—	1	—	227	—	Coleraine
—	2	—	2,233	—	2	—	—	Dublin University
1	—	—	—	1	—	121	—	Dungannon
1	—	—	—	1	—	115	—	Ennis
—	1	—	—	1	—	107	—	Kinsale
1	—	—	—	1	—	86	—	Mallow
1	—	—	—	1	—	122	—	New Ross
—	1	—	241	—	—	Disfranchised	—	Sligo
1	—	—	—	1	—	142	—	Tralee
1	—	—	—	1	—	323	—	Wexford
8	6	274	2,474	9	3	1,243	325	

TABLE A (*contd.*)—*Irish Counties*

	Unsuccessful Candidates.							
	1868.				1874.			
	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.
Meath	1	—	88	—	—	1	—	523
Monaghan	1	—	960	—	1	—	2,105	—
	2	—	1,048	—	1	1	2,105	523

TABLE A (*contd.*)—*Irish Counties*

	Unsuccessful Candidates.							
	1868.				1874.			
	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.
Antrim	—	—	—	—	1	—	4,009	—
Armagh	—	—	—	—	1	—	214	—
Cavan	—	—	—	—	1	—	2,310	—
Clare	—	—	—	—	—	1	—	1,240
Cork	1	—	3,717	—	—	—	—	—
Donegal	—	—	—	—	2	—	3,583	—
Down	—	—	—	—	—	1	—	4,683
Dublin	1	—	1,183	—	—	—	—	—
Fermanagh	—	—	—	—	2	—	1,643	—
Galway	—	—	—	—	1	—	1,180	—
Kildare	—	—	—	—	2	—	953	—
Kilkenny	—	—	—	—	1	—	1,551	—
King's County	—	—	—	—	2	—	840	—
Leitrim	—	—	—	—	1	—	1,055	—
Limerick	—	—	—	—	1	—	995	—
Londonderry	—	—	—	—	—	2	—	3,103
Longford	—	—	—	—	1	—	432	—
Louth	—	—	—	—	2	—	872	—
Queen's County	—	—	—	—	1	—	993	—
Sligo	—	1	—	1,129	—	—	—	—
Tipperary	—	—	—	—	4	—	3,409	—
Tyrone	—	—	—	—	—	1	—	2,752
Waterford	—	—	—	—	1	—	446	—
Westmeath	—	—	—	—	2	—	738	—
Wexford	—	—	—	—	1	1	1,332	1,224
Wicklow	—	—	—	—	2	—	1,480	—
	2	1	4,900	1,129	29	6	28,035	13,002

Contested at Both Elections.

Successful Candidates.								
1868.				1874.				
Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	
2	—	3,405	—	2	—	3,425	—	Meath
—	2	—	5,915	—	2	—	4,898	Monaghan
2	2	3,405	5,915	2	2	3,425	4,898	

Contested at One Election only.

Successful Candidates.								
1868.				1874.				
Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	Liberal.	Conservative.	Liberal Votes.	Conservative Votes.	
—	2	—	—	—	2	—	8,498	Antrim
—	2	—	—	—	2	—	7,123	Armagh
1	1	—	—	2	—	6,308	—	Cavan
1	1	—	—	2	—	5,660	—	Clare
2	—	14,621	—	2	—	—	—	Cork
—	2	—	—	—	2	—	3,968	Donegal
—	2	—	—	1	1	4,814	5,000	Down
—	2	—	4,352	—	2	—	—	Dublin
—	2	—	—	—	2	—	4,189	Fermanagh
2	—	—	—	2	—	4,618	—	Galway
2	—	—	—	2	—	2,260	—	Kildare
2	—	—	—	2	—	4,742	—	Kilkenny
2	—	—	—	2	—	3,270	—	King's County
1	1	—	—	1	1	1,313	1,098	Leitrim
2	—	—	—	2	—	6,377	—	Limerick
—	2	—	—	2	—	5,689	—	Londonderry
2	—	—	—	2	—	3,551	—	Longford
2	—	—	—	2	—	2,452	—	Louth
2	—	—	—	2	—	3,364	—	Queen's County
1	1	1,671	1,298	1	1	—	—	Sligo
2	—	—	—	2	—	6,658	—	Tipperary
—	2	—	—	—	2	—	8,767	Tyrone
2	—	—	—	1	1	1,390	1,767	Waterford
2	—	—	—	1	1	2,202	2,164	Westmeath
1	1	—	—	2	—	6,191	—	Wexford
—	2	—	—	1	1	1,511	1,146	Wicklow
29	23	16,292	5,650	34	18	72,370	43,720	

TABLE A (*contd.*)—*English and Welsh Boroughs not Contested at either Election.*

	1868.		1874.	
	Liberal.	Conservative.	Liberal.	Conservative.
*Bridport	1	—	1	—
*Calne	1	—	1	—
*Cambridge University	—	2	—	2
Cardigan	1	—	1	—
*Eye	—	1	—	1
Huntingdon	—	1	—	1
*London University	1	—	1	—
*Marlborough	1	—	1	—
*Montgomery	1	—	1	—
*Oxford University	—	2	—	2
*Retford	1	1	1	1
*Wilton	1	—	1	—
	8	7	8	7

* No change.

TABLE A (*contd.*)—*English and Welsh Counties not Contested at either Election.*

	1868.		1874.	
	Liberal.	Conservative.	Liberal.	Conservative.
Bedfordshire	1	1	1	1
Cheshire, East	—	2	—	2
,, West	—	2	—	2
Cornwall, West	2	—	2	—
Dorsetshire	1	2	1	2
Essex, West	—	2	—	2
Flintshire	1	—	1	—
Gloucestershire, East	—	2	—	2
Hants, North	—	2	—	2
Lincolnshire, North	1	1	—	2
,, Mid	1	1	—	2
Merionethshire	1	—	1	—
Montgomeryshire	—	1	—	1
Norfolk, West	—	2	—	2
Northampton, North	—	2	—	2
Northumberland, North	—	2	—	2
,, South	1	1	1	1
Nottinghamshire, North	1	1	—	2
,, South	—	2	—	2
Oxfordshire	1	2	1	2
Pembrokeshire	—	1	—	1
Rutlandshire	—	2	—	2
Somersetshire, West	—	2	—	2
Staffordshire, North	1	1	—	2
Sussex, West	—	2	—	2
Westmorland	—	2	—	2
	12	38	8	42

TABLE A (*contd*).—*Scotch Boroughs not Contested at either Election.*

	Successful Candidates.	
	Liberal, 1868.	Liberal, 1874.
Elgin Burghs	1	1
Haddington	1	1
Hawick	1	1
St. Andrews	1	1
	4	4

TABLE A (*contd.*)—*Scotch Counties not Contested at either Election.*

	Successful Candidates.			
	1868.		1874.	
	Liberal.	Conservative.	Liberal.	Conservative.
Aberdeen, East	1	—	1	—
Argyleshire	1	—	1	—
Banffshire	1	—	1	—
Forfarshire	1	—	1	—
Inverness-shire	—	1	—	1
Lanarkshire, North	1	—	1	—
Ross and Cromarty	1	—	1	—
Sutherlandshire	1	—	1	—
	7	1	7	1

TABLE A (*contd.*)—*Irish Boroughs not Contested at either Election.*

	Successful Candidates.			
	1868.		1874.	
	Liberal.	Conservative.	Liberal.	Conservative.
Clonmel	1	—	1	—
Downpatrick	—	1	—	1
Kilkenny	1	—	1	—
Lisburn	—	1	—	1
	2	2	2	2

TABLE A (*contd.*)—*Irish Counties not Contested at either Election.*

	Successful Candidates.			
	1868.		1874.	
	Liberal.	Conservative.	Liberal.	Conservative.
Carlow	—	2	—	2
Kerry	2	—	2	—
Mayo	1	1	2	—
Roscommon	2	—	2	—
	5	3	6	2

TABLE B.—

	1868.					
	Liberal.		Liberal Votes.	Conservative.		Conservative Votes.
English and Welsh boroughs contested at both elections	—	169	628,331	—	67	191,543
	97	—	*228,239*	*107*	—	*222,946*
English and Welsh boroughs contested at one election	—	11	53,703	—	12	7,700
	11	—	*4,583*	*10*	—	*22,985*
	108	180	914,856	*117*	79	445,174
English and Welsh counties contested at both elections	—	21	81,707	—	35	143,464
	28	—	*106,842*	*17*	—	*54,842*
English and Welsh counties contested at one election	—	11	39,292	—	48	180,799
	33	—	*96,811*	*4*	—	*11,593*
	169	212	1,239,508	*138*	162	835,872
Scotch boroughs contested at both elections	—	13	83,122	—	—	—
	9	—	*12,534*	*3*	—	*12,205*
Scotch boroughs contested at one election	—	5	11,128	—	—	—
	3	—	*4,696*	*3*	—	*4,508*
	181	230	1,350,988	*144*	162	852,585
Scotch counties contested at both elections	—	9	11,048	—	—	—
	2	—	*1,313*	*7*	—	*7,559*
Scotch counties contested at one election	—	2	2,131	—	5	2,612
	5	—	*2,097*	*2*	—	*1,837*
	188	241	1,367,577	*153*	167	864,593
Irish boroughs contested at both elections	—	19	21,223	—	4	11,802
	11	—	*7,513*	*15*	—	*13,505*
Irish boroughs contested at one election	—	2	274	—	3	2,474
	2	—	*445*	*3*	—	*977*
Irish counties contested at both elections	—	2	3,405	—	2	5,915
	2	—	*1,048*	—	—	—
Irish counties contested at one election	—	3	16,292	—	3	5,650
	2	—	*4,900*	*1*	—	*1,129*
	205	267	1,422,677	*172*	179	906,045
Uncontested Seats—						
English boroughs............	—	34	—	—	13	—
,, counties	—	21	—	—	51	—
Scotch boroughs	—	11	—	—	—	—
,, counties	—	13	—	—	2	—
Irish boroughs	—	8	—	—	5	—
,, counties	—	31	—	—	23	—
	205	385	—	*172*	273	—

Note.—Unsuccessful candidates and votes

1874.						
Liberal.		Liberal Votes.	Conservative.		Conservative Votes.	
—	120	463,809	—	116	401,876	English and Welsh boroughs contested at both elections
134	—	*328,910*	*91*	—	*189,632*	
—	21	63,947	—	11	18,627	English and Welsh boroughs contested at one election
15	—	*19,784*	*13*	—	*22,021*	
149	141	876,450	*104*	127	632,156	
—	10	37,130	—	46	219,062	English and Welsh counties contested at both elections
34	—	*133,980*	*7*	—	*19,725*	
—	7	32,164	—	15	36,677	English and Welsh counties contested at one election
10	—	*16,914*	*6*	—	*22,991*	
193	158	1,096,638	*117*	188	930,611	
—	10	64,998	—	3	16,353	Scotch boroughs contested at both elections
9	—	*26,426*	*4*	—	*18,062*	
—	7	29,803	—	—	—	Scotch boroughs contested at one election
3	—	*7,113*	*5*	—	*11,079*	
205	175	1,224,978	*126*	191	976,105	
—	3	3,144	—	6	8,900	Scotch counties contested at both elections
6	—	*7,824*	*3*	—	*2,501*	
—	4	6,162	—	3	2,914	Scotch counties contested at one election
3	—	*2,716*	*4*	—	*8,145*	
214	182	1,244,824	*133*	200	998,565	
—	15	13,803	—	8	23,701	Irish boroughs contested at both elections
18	—	*11,895*	*7*	—	*3,301*	
—	8	1,016	—	1	325	Irish boroughs contested at one election
5	—	*525*	*6*	—	*497*	
—	2	3,425	—	2	4,898	Irish counties contested at both elections
1	—	*2,105*	*1*	—	*523*	
—	31	72,370	—	15	43,720	Irish counties contested at one election
29	—	*28,035*	*6*	—	*13,002*	
267	238	1,377,998	*153*	226	1,088,532	
						Uncontested Seats—
—	18	—	—	16	—	English boroughs
—	16	—	—	93	—	,, counties
—	8	—	—	1	—	Scotch boroughs
—	9	—	—	6	—	,, counties
—	3	—	—	4	—	Irish boroughs
—	9	—	—	5	—	,, counties
267	301	—	*153*	351	—	

given to them are printed in *Italics*.

Discussion *on* Mr. John Biddulph Martin's Paper.

Mr. R. Dudley Baxter said that he had prepared a series of tables on the subject, with the view of publishing them, but had not had time to complete them. He congratulated Mr. Martin upon his excellent paper, although he found some differences between his own results and those of Mr. Martin. His own calculation with regard to polling was that the votes given on the Liberal side to first candidates in the United Kingdom were 724,000, whilst the Conservative first candidates polled 681,000 votes. That differed from Mr. Martin's calculation, which was 778,000 Conservative votes, and 782,000 Liberal votes; so that there seemed to be a difference in the principle on which they were made up. But the politics of the members were taken by him from the lists accepted as correct. There were two reasons very justly put forward by Mr. Martin why the amount of Conservative votes was so much smaller than the Liberal votes. First of all there was a larger number of uncontested Conservative than there was of Liberal seats, the reason being the great preponderance of the Conservatives in the counties. The other reason was that the counties, where the Conservative strength lay, had a very much less proportion of voters than the Liberals. The great difference which that made could be judged of from the fact, that the uncontested boroughs, where the strength of the Liberal party lay, had a population of 1,772,000, while the uncontested counties, where the Conservative strength lay, had a population of 8,265,000. There was one point he should like to touch upon, which had not been mentioned in the paper; the proportion of population which was represented by members on either side. Some years ago it used to be the habit, chiefly on the Liberal side, to issue a statement, after every division, in the House of Commons, of the members representing a population of 5,000,000 voting on the one side, and those representing perhaps 3,000,000 on the other side; and yet those representing the three millions outnumbered in votes in the House those representing the five millions. There was a rough sort of justice in that way of computation. In the election of 1868 he computed the population on each side, counting the whole population where all the members were on the same side, and giving half the population to each side where they were divided. That gave, in the Parliament of 1865, constituencies represented by Liberals 17,000,000, and by Conservatives very nearly 12,000,000, being a Liberal majority of 5,000,000. In the Parliament of 1868 the population represented by Liberals was 16,817,000, and by Conservatives 12,099,000, being a majority of 4,718,000. On the same principle, the population in the present Parliament represented by Conservatives is 16,685,000, and by Liberals 14,433,000, so that there is now a Conservative majority of over 2,200,000. He should also like briefly to allude to the changes that had taken place in the representation of the different boroughs, between the last and the present election. The total Conservative gain in the last election he estimated at 83, and the total Liberal gain at 27; making a net Conservative gain of 56: and it was curious to observe how small a proportion of that was in the uncontested constituencies. In the counties there was a Conservative uncontested gain of 5, and a Liberal uncontested gain of 2. In the boroughs there was a Conservative uncontested gain of 2, and a liberal uncontested gain of 1. In the contested constituencies the gain was 76 Conservatives against 24 Liberals; but the way in which it was distributed was very curious. In boroughs under 10,000 inhabitants there was a gain of 11 Conservatives and 8 Liberals; so that there they were very nearly equally divided. In boroughs between 20,000 and 10,000 there was a Conservative gain of 14 and a Liberal gain of 7, or about 2 to 1. Between 20,000 and 30,000 there was a gain of 11 Conservatives and 2 Liberals, or 5 to 1. Between 30,000 and 60,000 there was a Conservative gain of 17 and a Liberal gain of 5; or rather more than 3 to 1. Between 60,000 and 100,000 there was a Conservative gain of 6 and a Liberal gain of 2; or three to one; and in boroughs of over 100,000 inhabitants there was a Conservative gain of 17 and a Liberal gain of nothing, showing that the Conservative element had gained in the largest proportions in the most densely populated towns.

Mr. J. T. HAMMICK regretted that Mr. Martin had not been able to state the cost of the election. He had watched some figures as they appeared in the newspapers, and he had arrived at the conclusion that, in round numbers, there was scarcely any election that cost less than 800*l.* or 1,000*l.*, so that the total cost could not be less than 500,000*l.* He believed that a return had been called for showing the expenses of the returning officers, but the expenses of the agents had not yet been called for. All this would have been a very interesting addendum to Mr. Martin's paper; and he hoped that the facts would one day be laid before the public.

Mr. L. H. COURTNEY expressed a hope that the paper from which Mr. Baxter had quoted, would be printed and published with the others. In order to arrive at satisfactory results there should be some method of determining the relative forces of the two parties of each constituency. He thought that there was nothing more fallacious than the method adopted by Mr. Baxter of finding out the population represented by a certain number of members, and attributing to these members the whole weight of the population behind them. If that method were adopted it would convey the impression that the whole of the county of Kent, for instance, was fairly represented by its six members, whereas in each division of Kent there had been a very close contest, and the division of parties had been very nearly even. The same would apply to Manchester, where the population had been always equally divided. He could imagine a case where a balance of even ten voters would be sufficient to throw the population from one side to the other. There must be a knowledge of the proportional movement of the population before any information as to the relative strength of the two parties could be obtained. He hoped that Mr. Baxter would review his method of calculation. In answer to the statement that there seemed to be an enormous Conservative gain in the upper boroughs; he might say that in the upper boroughs the Liberals had nothing to lose. They had actually increased the whole representation of the upper boroughs, and had every thing to gain. Therefore a small turning over there would represent a great gain upon paper, whereas down below there might have been a larger proportion, and the gain would have been small. It was too soon to expect a return of the expenses of last election. He thought that the last contest would be much less expensive than that of 1868, because there was so little preparation, and no time given in which to spend money. The question of expense was one of very great importance; and unless something were done to check the excessive expenditure which grew in proportion as the constituencies were enlarged, it would, by and bye, be absolutely impossible for any but a millionaire to enter Parliament at all.

Dr. FARR thought it required mathematical skill of a very high order to solve all the questions connected with elections. The question of three-corned constituencies was a very important one, and one which Mr. Martin had not attempted to grapple with. It threw great difficulties in the way of determining the amount of voters, as did also the mode now adopted of voting by ballot. He had come to the conclusion, after looking to the matter, that the representative system of this country was not representative in the proper sense of the word. As an instance, London, up to last election, was represented almost exclusively by Liberals, although it was practically known that all the electors of London were not Liberals. But while London returned Liberal members the county of Kent, on the other hand, sent Conservatives only, and the Liberals of Kent had not been represented for the last two or three years. Although, in certain respects, the

British representative body was the finest in the world, it did not fully represent the intelligence of the people. The special business of the laws was legislation, but the legislation of the country was in a very unsatisfactory state. The law nobody could understand or read. He therefore felt that the Society was indebted to Mr. Martin and others who had endeavoured to show how the country was represented, and he hoped that there would be several improvements suggested in the election of Members of Parliament. If Mr. Martin could find it convenient at some future time to give another paper embracing the topics alluded to by Mr. Hammick, he would be conferring a great benefit on the Society.

Mr. R. B. MARTIN said that in dealing with a matter of that kind it was difficult to know who were Liberals and who were Conservatives. If his brother and Mr. Dudley Baxter were to compare notes they would find that they had classed some members as Liberals who were Conservatives, and *vice versâ.* He agreed with Dr. Farr that the great aim should be to represent the people. He did not think that any large class of people having definite views and definite interests should be entirely swamped, because they happen to reside in the neighbourhood of a party holding still larger views who could swamp them. The expenses, as Mr. Hammick had said, would have been a very interesting supplement to the paper, because the future character of the House of Commons would depend very much upon the facility which men of moderate incomes would have of getting into Parliament. He thought that the election expenses ought not to fall upon the candidate, but should be borne by the constituencies. If this were the case the expenses would very soon be cut down in a most extraordinary ratio.

Mr. H. R. DROOP said that one thing he should like to see worked out was the localities. From what he had seen of the elections, it struck him that the greatest move in favour of Conservatives was all round London, while in the North there were hardly any seats gained. The question of expense was a very important one, and it was very difficult to suggest a proper remedy. The expenses were said to be optional; but then these expenses increased the number of votes on each side, and had the effect of turning the election by a very small number of votes. It would be a curious piece of statistics that would show how many elections turned on less than 100 votes. At the last election thirty-four Conservative members were elected by less than 100 votes over the next Liberal candidate. If 100 votes had been taken off the Conservative candidate, or 100 votes added to the Liberal, or if 50 votes had been taken from the one and 50 added to the other, the balance would have been changed. So that if thirty-four seats had been taken from the Conservatives and given to the Liberals, Mr. Gladstone would have been restored to power.

Mr. LUMLEY, Q.C., said he should have been glad if Mr. Martin could have given the number of neutral voters in each constituency during the elections of 1868 and 1874, which could be obtained by subtracting the number who voted from the number on the register. That inquiry would, no doubt, involve a considerable amount of trouble, but it would give some indication of the change of sentiment and opinion in regard to a large class of the electors. The general result was well known, but it would be interesting to know the result in particular places.

Mr. JOHN BIDDULPH MARTIN said, that if the discussion had taken place a week later he would have had such a return, which, however, would have only given the constituencies of English and Welsh boroughs, and would have excluded Scotland and Ireland. Mr. Disraeli had the return in his hand on the Wednesday previous, although it had not then been printed and presented to the House. It would be possible, by a great amount of trouble, to give the number of voters, as between the elections of 1865 and 1868 who voted at one election and abstained from voting at the other; but he did not think it would be possible now, without violating the secrets of the ballot.

Mr. LUMLEY said, that if Mr. Martin had given the number of voters on the register in each particular borough, he could have drawn his own conclusions as to how many had voted.

Mr. HAMMOND CHUBB thought that a much fairer representation would have been obtained if the third-corner principle in counties had not been introduced. If the county of Kent had been divided into two instead of three, the minority, in each instance, might have succeeded in getting in one candidate. In the election of 1868 he found that 21,000 Liberals voted and 23,000 Conservatives, and yet the county was represented by six Conservative members, although there was really but a difference of under 1,000 voters. In 1874 there were 13,000 Liberal voters and 28,000 Conservative voters, and the county was still represented by six Conservative candidates. If the county had been divided into two, one Liberal candidate would, almost as a matter of certainty, have got into each division.

Mr. JOHN BIDDULPH MARTIN, in reply, said that the discrepancy between his figures and those of Mr. Baxter might be accounted for by the fact, that it was always difficult to say what, in all cases, was the political creed of a candidate. He should have been glad to have added the cost of the election to his paper, but the returns for 1874 had not yet been issued. From the returns of 1868 he calculated that the average cost of election would be 10*s.* a head for the voter, and 1,500*l.* for the candidate. As to studying localities, it was rather his object to avoid that. He only wished to give the general result.

The PRESIDENT said that he was a little surprised that no observations had been made upon the great change that had taken place in the facilities that had been given for voting, in consequence of the introduction of the Ballot Act, and the quiet way in which elections were now carried on. A great many of the more timid and older men among the better classes, who must have been prevented on former occasions, now found great facilities for voting since the introduction of the Ballot, and the change that had taken place in men's opinions. As to the question of expense, he thought it was quite possible that if men paid little or nothing for getting into Parliament, they might not make so good representatives as those who paid their expenses as they now did. He did not think that the best friends of the working classes were to be found among the working classes themselves, but were those who endeavoured to promote their interests from philanthropic motives, and who had a better knowledge of their interests than they had themselves. He was sure the members of the Society would join with him in according their sincere thanks to Mr. Martin for the valuable paper he had just contributed, and for the masterly manner in which he had treated the subject.

MISCELLANEA.

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I.—*General Results of the Commercial and Financial History of* 1873.

FROM the *Economist* of the 14th March, 1874:—

"1873 has been, in most respects, a period of reaction from the high prices and excited demand of 1871, and more particularly of 1872. In the United States, in Germany, in Austria, in South America, there have been financial collapses of the most severe and extensive character. In this country there has been during the last three months of 1873, and the opening weeks of 1874, a marked and extensive fall in the prices of the great 'instrumental articles' of coal and iron, and in a large class of commodities entering into manufactures. In the United States and on the continent there has occurred since the summer of 1873 a very decided fall in wages. In this country the fall is now (February, 1874) only beginning to be felt, but all the probabilities point to a rapid decline before the end of the year.

"Foreign politics have entered scarcely at all into the mercantile calculation. The intrigue in France in the autumn for the restoration of the elder Bourbons, had but little interest out of that country. The most significant fact relative to the future—and perhaps not a very distant future—is the increasing burden of the Armed Peace maintained by France and Germany, and, as a necessary consequence, by their neighbours, Italy, Austria, and Russia; and the avowed hostility of Alsace-Lorraine to its new masters.

"The French Government have completed the payment of the war indemnity to Germany, amounting, with interest at 5 per cent., to a transfer of coin, bank notes, and bills of exchange, of 209 millions sterling; to which is to be added the Alsace railways, valued at 13 millions more—making a total of 222 millions sterling. The payments were completed by September, 1873, and the territory then liberated from German troops. Under the treaty of May, 1871, 40 millions were payable not before March, 1874, and 40 more millions not before March, 1875. The French Government have been able, therefore, to antedate the first settlement by more than a year and a-half.

"We collect in the following memorandum an epitome of the facts relating to this stupendous transaction:—

"'By the treaty of peace between France and Germany of 10th May, 1871, France engaged to pay to Germany as indemnity for the expenses of the war 5 milliards of francs—that is to say, five sums of 40 million pounds each, making in all 200 million pounds, with interest at 5 per cent. till the actual dates of payment. In diminution of the 200 millions the Alsace railways were reckoned as worth 13 millions, leaving the money payment at 187 millions and interest.

"'To provide for this indemnity France has issued two loans, viz.:—

1871.	1st June, 80 million pounds	220 million pounds.
'72.	1st July, 140 ,,	

"'The stipulations regarding the payment of the indemnity were:—

			Mln. £
1871.	August, first 1½ milliards		60
,,	Less Alsace railways		13
			47
1872.	February, fourth half-milliard		20
,,	Interest		7
			74
1872.	September, fifth half-milliard		20
			94
1873.	February, sixth half-milliard	20	
'74.	March, fourth milliard	40	
'75.	,, fifth ,,	40	
		—	100
			194
	Interest, say		28
			222

"'French territory to be gradually evacuated by the German troops as the several instalments were actually paid.

"'On 15th March, 1873, M. Thiers, after much negotiation with Prince Bismarck, concluded a further convention for hastening the periods of payment, and so liberating French soil from the occupation.

"'The convention recited that out of the 5 milliards (200 million pounds) 3½ milliards (140 million pounds) had been already paid, leaving 1½ milliards (60,000,000*l.*) still to pay. Of this remainder France engaged to pay 20 millions pounds on or before 10th May, 1873, in sums of not less than 4 million pounds each; and the fifth and final millard France engaged to pay in four sums of 10 million pounds each on 5th June, 5th July, 5th August, and 5th September, 1873, with interest at 5 per cent. from 2nd March, 1873, amounting to about 5 million pounds.

" 'This arrangement was punctually covered at and in September (1873); the indemnity payments to Germany were actually closed, and the last German soldier crossed the frontier.

" 'Instead, therefore, of the payments extending into 1874 and 1875, as arranged by the treaty of May, 1871, under the impression that it would not be possible to effect so enormous a transaction in any shorter time, the real dates of the payments have been as follows:—

		Mln. £	Mln. £
1871.	June, first payment	60	
,,	Less Alsace railways	13	
		—	47
1872.	February, second payment	20	
,,	,, interest	7	
		27	
1872.	September, third payment	20	
,,	December, fourth ,,	40	
		—	87
			134
1873.	April, fifth payment	20	
,,	June, sixth ,,	10	
,,	July, seventh ,,	10	
,,	August, eighth payment	10	
,,	September, ninth ,,	10	
		60	
1873.	September, interest	5	
		—	65
			199
1873.	Paris ransom		10
	Total cash payment by France		209
	Add Alsace railways		13
	Total transfer to Germany		222

" 'According to this statement the payments in bills, notes of the Bank of France, and gold and silver coin, were 115 million pounds during the twelve months between September, 1872, and September, 1873.

" 'The general abstract of the payment is as follows:—

	Mln. £
Indemnity per treaty of May, 1871	200
Less Alsace railways	13
	187
Interest to September, 1873	12
	199
Paris ransom	10
	209
Alsace railways	13
	222

"'Up to October, 1872, when the total transfer was 120 million pounds, the component parts of the payments were given as follows:—

		£
French gold and silver coin		6,400,000
Bank notes—French	£5,000,000	
,, German	3,200,000	
		8,200,000
Bills of exchange—On Belgium and Holland	16,000,000	
,, Germany	40,000,000	
,, England	24,000,000	
		80,000,000
		94,600,000
Alsace railways	13,000,000	
Indemnities paid by various towns during the war in gold or French notes	12,400,000	
		25,400,000
		120,000,000

"The harvest of 1873 is described (*passim*) by Mr. Kains Jackson thus:—'In England and France a fine harvest time in 1873 has failed to balance a bad seed time of the autumn (of 1872) and the late frosts of a dreary spring, and the result has been a *deficiency* in the yield of *wheat* of 20 to 30 per cent. *below* an average.' *Barley* was better. *Oats* a fair average crop.

"The following is our usual table:—

(I).—*Gazette Average Price of Wheat (per Imperial Quarter) in United Kingdom, immediately after Harvest,* 1863-73, *and Total Average Price of Calendar Years.*

After Harvest.			Yearly Average.		
	s.	*d.*		*s.*	*d.*
1873	64	2	1873	58	8
'72	58	6	'72	57	–
'71	56	3	'71	56	8
1870	48	6	1870	46	11
'69	46	2	'69	48	2
'68	53	6	'68	63	9
'67	70	8	'67	64	6
1866	52	6	1866	49	11
'65	42	4	'65	41	10
'64	38	6	'64	40	2
'63	40	–	'63	44	9

"1873 is the fourth year of high prices of wheat; and if we except 1870 and 1869, years of more moderate but not of low prices, we have to go back eight years, to 1865, before we come to really low prices. It is possible that we are now at the end of the dear cycle.

"The demonetisation of silver in Germany and several other

States, and the increased production of the metal itself, combined with a falling off in the requirements for it in the East, have produced great changes in the price of standard bars.

"Quartz crushing in Australia is now an established and scientific method of gold mining, and discoveries quite recently made in the Trans-Vaal district of the Cape of Good Hope appear to indicate gold fields not inferior to some of the richest in Australia.

"The following Table (II) will be useful:—

(II).—*Silver,* 1861-73, *Exports to East, Imports into United Kingdom, Coinage, &c.* (Pixley and Abell's Circular.)

[0,000's omitted, thus 2,50 = 2,500,000.]

Years.	Silver sent to *East.*	Bills Drawn by India Council.	Imports of *Silver* into United Kingdom.	Silver *Coined* in United Kingdom.	Average Price Standard Silver in London.	Average Bank-rate Discount.
	Mln. £	Mln. £	Mln. £	Mln. £	Per oz. *d.*	Per cnt.
1873....	2,50	13,94	—	1,08	59¼	5½
'72....	5,65	10,31	11,14	1,24	$60\frac{5}{16}$	4½
'71....	3,71	8,44	16,52	0,70	60½	3¼
1870....	1,58	6,98	10,65	0,33	60½	3
'69....	2,36	3,70	6,73	0,07	$60\frac{7}{16}$	3¼
'68....	1,63	4,14	7,71	0,30	60½	2¼
'67....	0,64	5,61	8,02	0,19	60½	2½
'66....	2,36	7,00	10,78	0,49	61⅛	7
1865....	3,60	6,79	6,98	0,50	$61\frac{1}{16}$	4½
'64....	6,25	8,98	10,83	0,53	61⅜	7½
'63....	8,26	6,64	10,88	0,16	61⅜	4½
'62....	10,09	1,19	11,75	0,15	61½	2½
'61....	6,82	—	6,59	0,21	61	5½

"The cotton trade has now so fully recovered from the effects of the American civil war, that it is no longer necessary to accord to it the prominence which was necessary so long as it was in a wholly exceptional condition.

"Messrs. Ellison and Co. say (*passim*) of the cotton trade of 1873, that while '1872 was a year of constant anxieties, disappointments, and general unprofitableness, the best that can be said of 1873 is that it was not quite so bad as 1872. To importers of the raw material and shippers, of the manufactured article, 1873 was almost as disappointing as 1872, owing to the downward course of prices; but that which was a source of loss to importers and shippers was, to a certain extent, a source of profit to producers, and to spinners and manufacturers, therefore, 1873 was more profitable than 1872, though by no means as profitable as 1871.'

"The following Table (III) continues the information of former years regarding average import price and consumption:—

(III).—*United Kingdom,* 1857-73. *Estimated Value of Raw Cotton Imported, Re-Exported, and Consumed.* (Ellison's Circular.)

[00,000's omitted, thus 54,2 = 54,200,000*l.* The *bales* are given in full.]

Years.	Import.		Re-Exported.	Consumed, United Kingdom.		
	Value.	Price.	Value.	Value.	Total Weight.	Bales per Week, 400 lbs. each.
	Mln. £	Per lb. *d.*	Mln. £	Mln. £	Mln. lbs.	No.
1873	54,2	8$\frac{5}{8}$	6,1	45,4	1,246,	59,910
'72	53,3	9$\frac{5}{16}$	8,5	48,0	1,175,	56,510
'71	55,9	8	9,8	40,8	1,205,	57,950
'70	51,0	9$\frac{5}{16}$	8,2	42,1	1,071,	51,520
1869	55,2	11$\frac{1}{16}$	11,3	43,8	940,	45,140
'68	52,0	9$\frac{5}{8}$	11,6	41,0	996,	47,890
'67	53,8	10$\frac{1}{8}$	14,0	41,2	954,	45,890
'66	75,8	13$\frac{1}{2}$	19,5	51,9	800,	42,829
1865	63,2	15$\frac{3}{4}$	17,1	47,2	718,	34,550
'64	82,2	22	22,1	52,4	561,	26,980
'63	58,0	20$\frac{1}{2}$	21,6	40,7	476,	22,910
1862	31,1	14	12,4	24,7	449,	21,620
'61	38,7	7$\frac{3}{8}$	7,9	32,2	1,005,	49,800
'60	36,6	6$\frac{3}{8}$	5,5	28,9	1,079,	51,890
1859	32,2	6$\frac{1}{2}$	4,1	27,6	—	47,000
'58	27,2	6$\frac{5}{8}$	3,3	24,8	907,	Not given
'57	28,6	7$\frac{1}{8}$	3,5	24,8	825,	

"The import price has now fallen to 8$\frac{5}{8}$*d.*, and the weekly consumption has risen to, say 60,000 bales (400 lbs.). In the 'great year,' 1860, before the war, the import price was 6$\frac{3}{8}$*d.*, and the weekly consumption 52,000 bales. It is not probable that the import price will fall much lower than 8$\frac{1}{2}$*d.* or 8*d.*, and the advancing consumption seems to indicate that with such a cost of the raw material, with improvements of machinery, rapidity of transit, and telegraphic communication, home and foreign markets have resumed their former preference for, and recovered their former means of consuming, cotton fabrics.

"The next Table (IV) has been enlarged from former years, and now shows in *pounds weight*, as the best test, the *quantity* of cloth and yarn consumed at *home* and exported in each year 1857-73, with collateral columns of the average prices of raw cotton as imported, exported, and consumed at home:—

(IV).—*Cotton Cloth and Yarn, Exported and Estimated as Actually Consumed at Home*, 1857-73, *in Millions of Pounds Weight.* (Ellison's Circular.)

[000,000's omitted.]

1	2	3	4	5	6	7	8	9
Years.	Yarns and Cloth Exported.			*Home Consumption,* Yarns and Cloth.	Total Weight.	Average Prices of Raw Cotton.		
	Yarn.	Cloth.	Total.			Imported.	Exported.	Home Consumption.
	Mln. lbs.	Mln. lbs.	Mln. lbs.	Mln. lbs.	Mln. lbs.	Per lb. *d.*	Per lb. *d.*	Per lb. *d.*
1873....	215,	688,	903,	175,	1,077,	$8\frac{5}{8}$	7	$8\frac{3}{4}$
'72....	212,	698,	910,	129,	1,055,	$9\frac{5}{16}$	$7\frac{1}{2}$	$9\frac{3}{4}$
'71....	193,	680,	873,	199,	1,058,	8	7	$8\frac{1}{4}$
'70....	186,	616,	802,	140,	942,	$9\frac{1}{2}$	$8\frac{1}{2}$	$9\frac{3}{4}$
1869....	169,	535,	704,	112,	829,	$11\frac{1}{4}$	10	$11\frac{1}{4}$
'68....	174,	548,	723,	160,	883,	$9\frac{1}{2}$	$8\frac{3}{4}$	$9\frac{1}{8}$
'67....	164,	523,	687,	145,	832,	$10\frac{1}{2}$	$9\frac{1}{2}$	$10\frac{3}{8}$
'66....	134,	491,	625,	145,	770,	$13\frac{1}{2}$	$11\frac{7}{8}$	14
1865....	98,	377,	475,	150,	625,	$15\frac{3}{4}$	$14\frac{1}{8}$	$15\frac{3}{4}$
'64....	71,	332,	403,	110,	513,	22	$21\frac{1}{2}$	$22\frac{7}{8}$
'63....	70,	321,	392,	93,	485,	$20\frac{1}{8}$	$19\frac{7}{8}$	$20\frac{1}{2}$
1862....	88,	324,	412,	102,	514,	14	$13\frac{3}{4}$	$14\frac{1}{4}$
'61....	177,	496,	674,	174,	848,	$7\frac{3}{8}$	$6\frac{1}{8}$	$7\frac{3}{8}$
'60....	197,	542,	740,	173,	913,	$6\frac{1}{2}$	$5\frac{1}{4}$	$6\frac{1}{2}$
1859....	192,	500,	693,	172,	865,	$6\frac{1}{4}$	$5\frac{3}{4}$	$6\frac{3}{8}$
'58....	200,	452,	652,	158,	810,	$6\frac{5}{8}$	$5\frac{3}{4}$	$6\frac{3}{8}$
'57....	176,	466,	583,	156,	739,	$7\frac{1}{8}$	$6\frac{1}{8}$	$7\frac{1}{4}$

"In the next Table (V) we give the distribution of cotton piece goods to the leading markets in 1873-71, and in 1860, stated in quantities of millions of yards:—

(V).—*Exports of Cotton Piece Goods*, 1873-71 *and* 1860, *in Quantities* (*Millions of Yards*) *and Percentage of Totals.* (Ellison's Circular.)

[000,000's omitted.]

Exported to	Quantities.				Per Cent. of Total.			
	1873.	1872.	1871.	1860.	1873.	1872.	1871.	1860.
	Mln. yds.	Mln. yds.	Mln. yds.	Mln. yds.	Per cnt.	Per cnt.	Per cnt.	Per cnt.
India and Egypt	1,340,	1,255,	1,291,	910,	38·5	35·5	37·9	32·9
China	401,	464,	551,	324,	11·5	13·1	16·2	11·7
Turkey and Levant	327,	330,	244,	272,	9·4	9·3	7·2	9·8
	2,068,	2,039,	2,086,	1,506,	59·4	57·9	61·3	54·4
United States	109,	132,	129,	226,	3·1	3·7	3·8	8·2
Rest of America and West India	619,	668,	619,	527,	17·8	19·0	18·1	19·0
	2,796,	2,839,	2,834,	2,259,	80·3	80·6	83·2	81·6
Italy, Austria, &c.	234,	219,	186,	198,	6·7	6·2	5·5	7·1
Germany....................	107,	130,	107,	102,	3·1	3·7	3·1	3·7
Other Countries........	343,	335,	280,	217,	9·9	9·5	8·2	7·6
	3,482,	3,535,	3,410,	2,776,	100·0	100·0	100·0	100·0

"Table (V a) will complete the series relating to cotton:—

(V a).—*Cotton Trade, General Results*, 1857-72. *Estimate, per Ellison's Circular of* (1) *Total Value of Goods Produced;* (2) *Cost of Raw Cotton Consumed therefor; and* (3) *Balance left for Profits, Interest, Wages, and Expenses.*

[00,000's omitted.]

Year.	Total Value of Goods Produced.	Cost of Raw Cotton.	Left for Wages, Profit, and other Expenses.
	Mln. £	Mln. £	£ Mln.
1873....	104,6	45,4	59,2
'72....	102,3	48,0	54,3
'71....	102,0	40,8	61,2
1870....	93,1	42,1	51,0
'69....	86,2	34,8	42,4
'68....	91,7	41,0	51,7
1867....	90,4	41,2	49,2
'66....	102,7	51,9	50,8
'65....	83,2	47,3	35,9
	Mln. £	Mln. £	Mln. £
1864....	76,4	52,5	23,9
'63....	59,8	40,6	19,2
1862....	42,7	26,7	16,0
'61....	74,3	32,2	42,1
'60....	80,6	28,9	51,7
1859....	72,2	27,6	44,6
'58....	63,1	24,8	38,3
'57....	59,8	24,8	35,0

"These figures indicate very clearly the vastly increased capital required to bring the cotton manufacture to market. In 1873 the goods produced cost 104 million pounds; in 1860 only 80 millions.

"The following Table (VI) gives the usual summarised view of the rates of discount prevailing over Europe in 1873 and four preceding years.

(VI).—*European Rates of Discount*, 1869-73. *Average Annual Rates per Cent. per Annum, at Places as under for First Class Bills, being Abstract of Appendix* (F).

Places.	1873.		1872.		1871.		1870.		1869.	
	Principal Bank.	Open Market.	Principal Bank.	Open Market.	Principal Bank.	Open Market.	Principal Bank.	Open Market.	Principal Bank.	Open Market.
	Pr. cnt.	Per cnt.	Pr. cnt.	Per cnt.	Pr. cnt.	Per cnt.	Pr. cnt.	Per cnt.	Pr. cnt.	Per cnt.
London	4	4½	4½	4¼	3	2¾	3¼	3	3½	3
Paris	5¼	5	5¼	4½	6	—	—	—	2½	2¼
Frankfort	4¾	4½	4½	4	3¾	3½	—	—	3	2½
Amsterdam	4¾	4½	3½	3	3¼	3⅛	—	4¼	3½	3½
Hamburg	—	4½	3½	3	4	3	—	3¼	—	2¾
Brussels	5	4¾	4	4	3½	3⅛	—	—	2½	2½
Berlin	5	4½	4½	4	4½	3¾	—	4½	4¼	3¼
Vienna........	5¼	5¼	6	5¾	5¾	5½	—	5½	4¾	4⅜
Petersburg	6¼	6¼	6½	6½	7	6½	—	5¾	6⅜	6⅛
Turin	—	—	—	—	6	—	—	—	5	5
Madrid	—	—	—	—	5	—	—	—	5½	5

"The next Table (VII) gives the circulation and bullion reserves of the leading continental banks.

(VII).—*Leading Foreign Banks,* 1873. *Circulation and Bullion Reserve at Dates as under, being Summary of Appendix* (Ea) *in Million £.*

[00,000's omitted, thus 111,5 = 111,500,000*l.*]

Dates.	Bank of France.		Bank of Prussia.		Bank of Austria.		Bank of Hamburg.		Bank of Belgium.	
	Cash.	Bullion.	Cash.	Bullion.	Cash.	Bullion.	Cash.	Bullion.	Cash.	Bullion.
1873.	Mln. £	Mln. £	Mln. £	Mln. £	Mln. £	Mln. £	Mln. £	Mln. £	Mln. £	Mln. £
1st Jan.	111,5	31,7	45,5	27,6	32,5	14,2	—	2,6	11,7	4,7
1st Mar.	111,9	31,7	44,9	30,1	30,0	14,2	—	1,2	12,6	5,8
1st May	113,0	32,5	43,1	32,4	32,1	14,3	—	,9	13,1	5,1
1st July	115,7	31,0	42,7	35,4	35,5	14,4	—	1,2	14,1	5,6
1st Aug.	115,9	28,4	39,0	36,8	34,3	14,5	—	,9	13,3	5,8
1st Sept.	115,4	28,6	38,8	37,4	33,8	14,5	—	,9	13,5	5,6
1st Oct.	117,8	28,7	46,2	36,0	34,3	14,4	—	1,0	13,5	4,9
1st Nov.	120,7	29,3	43,7	35,0	37,0	14,4	—	1,1	13,4	4,4
1st Dec.	115,7	29,3	42,4	35,4	36,4	14,4	—	1,0	12,5	4,4
1874.										
1st Jan.	115,8	30,6	44,6	35,2	36,0	14,4	—	,9	12,6	4,2

Note.—In Paris, through 1873, the price of gold varies from 2 to 9½ per mille prem., average, say 7¾ per mille prem.; in Austria, 8 per cent. prem.; in Petersburg, 12 per cent.; in Italy, 15 per cent.

"As fully explained (*passim*) 1873 has been a year of monetary pressure in Austria, Germany, this country, and the United States. In Vienna and in Berlin and Frankfort there was panic in April and May, and again in November. In the United States a collapse of the most severe form set in about the middle of September, and continued to the end of the year. In this country we had, in November (as has now become usual at that time of year), excessive stringency of rates, and no small alarm—alarm, indeed, so threatening that the occurrence of a few considerable failures would have led to grave disaster and the suspension of the Act of 1844. France also did not escape the difficulties which prevailed elsewhere.

"During 1874 it seems to be likely that the Berlin Mint will coin chiefly silver and copper, and so relieve the strain which it has exercised for two years over the gold markets of Europe.

"The increase in the notes of the Bank of France in November (1873) was quite up to the statutory limit of 120 million pounds. Since then the amount has declined somewhat. The depreciation on the notes is, so far, less than might have been expected. The explanation seems to consist in—(1) the diminution of coin in the country, rendering more paper necessary for ordinary purposes; (2) the discredit of any other form of credit on a large scale; (3) hoarding to some extent; (4) increase in prices.

"At Berlin and Vienna the circulation was highest at those periods of the year when panic and discredit were most prevalent.

"The year 1873 will be remembered for the detection and defeat of the deep plot laid by the American forgers, Macdonnell, Bidwell, and Noyes, to defraud the Bank of England of sums approaching 80,000*l.*, by first opening and carrying on an apparently respectable and extensive current account with the West End Branch, and then passing through it for discount parcels of bills with the forged acceptances of houses of the first class.

"The railways have continued to suffer severely through 1873, from the increased cost of coal, wages, and materials, and from their inability to make corresponding addition to their charges. Gas works also are in the same difficulty.

"The president of the Institution of Civil Engineers, Mr. Thomas Harrison, well known as the engineer-in-chief of the North-Eastern Railway, spoke as follows in his opening address, delivered in January, 1874:—

"'The question of the effect of the labour market on railways, both in their construction and working, had come forcibly home to every one connected with them. It was not too much to say that all new works were now *costing from* 30 *to* 40 *per cent. more than they did a few years ago, and nearly double the time was required to complete them.* Where the works were not near large towns, *labour could not be obtained,* and as a rule the same amount of work was not done as formerly. In the important colliery and iron districts of the north of England, the men could scarcely be induced to undertake night work—such as emptying the waggons at the furnaces, or filling coke after a certain hour at the coke ovens, and pitmen limited their work in many cases to four days a-week.

"'This created a great difficulty in getting traffic carried, and would, if continued, necessitate an enormous increase in rolling stock, sidings, and engine power, for at present the work got out of a mineral waggon in those districts was little more than two-thirds of what it was three or four years ago. The rapid development of traffic, the limitation of the hours of work, and the introduction of the block system, had necessitated a remodelling of the old mineral railways in the north of England, which it would take a long time to complete.'"

"The following Table (VIII) exhibits evidence in detail of the effects of increased cost on the thirteen leading English lines:—

(VIII).—*Railways, England, Thirteen Leading Lines. Increases over Corresponding Half of Previous Years.*

1	2	3	4	5	6	7	8
Year.	Half-Years.		Gross Traffic.		Working Expenses,		Increase.
			Increase.		*Increase.*	Total Expenses.	
			£	Per cnt.	Per cnt.	£	£
1870....	Second	December	736,000	5·3	4·7	7,087,000	—
'71	First	June	912,000	6·8	5·9	6,797,000	—
	Second	December	1,339,000	9·2	7·7	7,627,000	540,000
'72	First	June	1,170,000	8·3	11·4	7,967,000	1,170,000
	Second	December	1,256,000	7·5	14·0	9,121,000	1,494,000
'73	First	June	1,456,000	9·1	19·0	9,397,000	1,430,000
	Second	December	1,537,000	8·4	17·3	10,702,000	1,581,000

"These figures exhibit the expenses as swallowing up in 1872-73 more than all the increased traffics.

"With the autumn of 1873 a reaction in wages, coal, and materials began to be manifest, and has proceeded steadily ever since, as the following trade reports of February, 1874, will show:—

"First, as regards South Staffordshire, the report of 20th February, 1874, is:—

"'The iron trade *has reached a point of depression which bids fair to exercise,* at no distant period, an important influence on prices. The fact that the quotation standard had been maintained so long in the face of an adverse demand, affords a pretty clear indication of the financial soundness of the district. For some time past the finished ironworks have been only in *partial operation, and at the present moment the majority of them are running barely half-time.* This state of affairs not only strains the resources of the manufacturers, but it tries the *patience of the ironworkers, many of whom are now beginning to give expression to their discontent. Coal* of various qualities is, however, readily obtainable at 1*s.* to 2*s.* per ton below the rates ruling a fortnight ago, and 5*s.* per ton below the price of last November. The *collieries,* as a rule, are not in operation much more than *half-time,* while the continuous opening out of new plants is adding very materially to the available sources of supply.'"

"As regards Cleveland, the Middlesborough report of 24th February, 1874, is:—

"'The demand has been very small, and the tendancy of prices is downwards. The general rates of iron are about—No. 1, 85*s.*; No. 3, 80*s.*; No. 4 forge, 75*s.* net cash. Some makers are asking more, but iron has been offered at even lower than these quotations. They may be taken, however, as the average, if somewhat nominal, rates which now prevail. More iron is now produced than is required even for the local trade or foreign demand, hence the stocks in the north of England are increasing.'"

"The following statement gives the result of the great strike in South Wales, in the early part of 1873, ending in the defeat of the Trades' Unions, but at enormous cost:—

"'The great strike of colliers and ironworkers in South Wales lasted about eleven weeks, from the close of December (1872) to the beginning of March (1873). It extended to 116 collieries, 129 blast furnaces, 1,516 puddling and mill furnaces, and 78 rolling mills, employing altogether about 65 thousand persons. Of these between 50,000 and 60,000 went on strike. The loss of production occasioned by the enforced idleness of the works was reckoned at two millions sterling. Included in the total is 800,000*l.* for wages. The unions distributed only 40,000*l.* as 'strike pay.' The contest ended in the acceptance by the men of the employers' notice of a reduction of 10 per cent., and it also ended by inflicting a severe blow on the supposed supremacy and power of the Trades' Unions.'"

"One of the most remarkable results in this outline is the utterly insignificant amount of money, 40,000*l.*, provided by the Trades' Union to supply the place of the 800,000*l.* which would have been earned as wages.

"The high cost of coal has naturally produced the most powerful effects, first in stimulating the opening out of new sources of supply; second in promoting inventions for economising its use; and third for improved and cheaper methods of working coal mines. The following statement of December, 1873, will show the effects produced in the Midland District:—

" 'In the southern part of the *Midland coalfield,* the largest in England, and extending from Leeds to Nottingham, the greatest activity prevails in opening out several very large coalfields. The proposed line from Mansfield to Worksop will aid materially in opening out a vast tract of highly mineralised ground, so that collieries will be opened out on a straight course of from 30 to 40 miles. As the production at the *many new collieries* in Nottinghamshire is estimated at 1,000 tons a day, and as the present output of the 28 collieries in Nottinghamshire is at the rate of 2,500,000 tons a year, no great time will elapse before the quantity is increased to *four million tons,* while the Doncaster field, with its many thousand acres of fine coal, will also add largely to the production of the country.' "

II.—*Railways in Germany and the Rise of Wages and Prices*, 1867-73.

From Herapath's *Railway and Commercial Journal*, 30th May, 1874:—

" It appears that M. de Bismark, hitherto a resolute opponent to any proposition for raising the goods' rates on the German railways, has at last succumbed to the teaching of the last year's working, and has sent in to the Federal Council a memorandum stating that he sees no objection to a general raising of the goods' rates not exceeding an average increase of 20 per cent. Attached to this, is a report from the railways' department, showing the results of the working of thirty-five German railways during the last seven years, from 1867 to 1873, both inclusive.

" In 1867, these thirty-five companies owed 11,475 kils., which had cost them 2,384,373,074 marcs, or 209,615 m. per kil. In 1873, their length of line had increased to 15,831 kils., and the capital cost to 3,762,685,160 m., or to 237,683 m. per kil. Thus, in the seven years, the mileage had increased by 39 per cent., and the kilometric cost by 13 per cent. Adding ten lines which had been opened in the interval, a total is arrived at of 18,479 kils., and 4,418,499,512 m., or 239,097 m. per kil.

" With regard to the results of the working, the gross receipts of the thirty-five lines were:—In 1867, 326,018,947 m. (29,318 m. per kil.); in 1873, 561,189,677 m. (35,927 m. per kil.). The working expenses were:—In 1867, 157,008,410 m. (14,119 m. per kil.) or 48·1 per cent. of the gross receipts; and in 1873, 333,901,760 m. (21,376 m. per kil.), or 59·5 per cent. of the gross receipts. Consequently, the net receipts had fallen from 169,010,537 m. (15,199 m. per kil.), equal to 51·9 per cent. of the gross receipts, or to 7·1 per cent. of the capital cost, in 1867; down to 227,287,917 m. (14,551 m. per kil.), equal to only 40·5 per cent. of the gross receipts, or to 6 per cent. on the capital cost, in 1873. Taking into account the ten newer lines, the gross receipts in 1873 from the whole forty-five lines were 610,020,639 m. (33,483 m. per kil.); the working expenses 372,609,321 m. (20,452 m. per kil.), or 61·1 per cent. of the gross receipts; and the net receipts, 237,411,318 m. (only 13,031 m. per kil.), or 5·4 per cent of the capital cost.

" In the foregoing, the working expenses were restricted to those strictly such; if, however, renewals are included under this heading, the net receipts in 1873 on the thirty-five lines are reduced to 172,207,986 m. (11,024 m. per kil.), or 4·6 per cent. of the capital expenditure; while upon the forty-five lines, the net receipts will become 180,892,584 m. (9,929 m. per kil.), or but 4·1 per cent. of the capital expenditure. So that from 1867 to 1873 the kilometric gross receipt has increased, but the net receipt has diminished, the working expenses having increased about 25 per cent.

" The report attributes this unsatisfactory result to the facts that in the seven years enumerated, salaries have increased 25 per cent., workmen's wages about 50 per cent., and materials in general quite 100 per cent. The German Chancellor further declares that even should the goods' rates be raised the full 20 per cent. even this would by no means ensure that the average net return of the railways would be augmented from the 4·1 per cent. at which it now stands to as much as 5·5 per cent."

III.—*Marine Insurance Losses in Recent Years.*

The following two letters from Mr. Henry Jeula appeared in the *Times* of 26th January and 2nd May, 1874:—

" Sir,—From different volumes of the *Universal Mercantile List*, issued by the Bureau Veritas, and giving the number of seagoing merchant vessels belonging to various nations, a wider area of comparison now exists in relation to maritime wrecks and casualties than—so far as I am aware—has hitherto ever been available.

" The following summary will show the present aspect of this important subject—important alike to assurers and assured, to owners, sailors, and freighters.

" In 1870 the number of seagoing sailing vessels was given as 59,518; in 1873 they were only 56,281; steamers in 1870 numbered only 4,132, but in 1873 they had increased to 5,148.

" The results were that the undermentioned changes had occurred in 1873 as compared with 1870:—

	Percentage of	
	Increase.	Decrease.
SAILING VESSELS.		
British and foreign sailing vessels had decreased in number by	—	5·44
British and foreign sailing vessels posted on *Lloyd's Loss Book* and missing had increased by	7·85	—
Proportion of sailing vessels posted on *Lloyd's Loss Book* and missing to whole number had increased by (equal to an actual increase of 12 per cent.)	0·64	—
STEAMERS.		
British and foreign steamers had increased in number by	24·59	—
British and foreign steamers posted on *Lloyd's Loss Book* and missing had increased by	77·10	—
Proportion of steamers posted on *Lloyd's Loss Book* and missing to whole number had increased by (equal to an actual increase of 42 per cent.)	2·13	—

" These figures would seem to indicate that, from causes either known or unknown, a formidable increase in risk at present pervades maritime commerce and underwriting business generally; and, if this be so, the necessity for enhanced rates of premium can scarcely be disputed."

"Sir,—For several years past I have placed before the readers of *The Times* facts bearing upon our mercantile navy and marine insurance, in the hope that some comprehensive scheme might be developed by which information constantly accumulating at a heavy cost, but now so widely scattered as to be practically of little use, might be brought to a statistical centre, there tabulated and arranged, and thence issued in a cheap, simple, and available form for the advantage of those interested.

"This result has not as yet been attained, but it is not impossible that present circumstances in the marine insurance world may gradually lead to a more general conviction that some such institution is becoming increasingly necessary in the state of transition—as between sailing vessels and steamers—in which our maritime commerce would seem to be.

"The following figures show the constant increase in casualty to which I have already ventured to direct attention:—

"In the year 1873 there were 3,154 vessels posted on *Lloyd's Loss Book*, while the average for ten years ending 1873 inclusive was 2,984, showing an increase of 5·69 per cent.

"The number for each of the four years (1870-73 inclusive), was as under:—

Vessels Posted on Lloyd's Loss Book.

Year.	Sailing Vessels.			Steamers.		
	Number.	Percentage of Annual		Number.	Percentage of Annual	
		Increase.	Decrease.		Increase.	Decrease.
1870	2,644	—	—	207	—	—
'71	2,768	4·68	—	253	22·22	—
'72	3,037	9·72	—	315	24·51	—
'73	2,791	—	8·10	363	15·24	—

"In the interval, 1870-73 inclusive, sailing vessels thus posted had increased by 5·67 per cent., and steamers by 75·36 per cent.

"At the end of 1869 there were, according to the *Statistical Abstract of the United Kingdom*, 24,187 sailing vessels registered as belonging to the United Kingdom, but at the close of 1872 there were only 22,103, being a decrease of 2,084 vessels, equal to 8·62 per cent.

"At the end of 1869 there were 2,972 registered steamers, while at the end of 1872 they had increased to 3,673, or by 701 vessels—equal to 23·59 per cent.

"In 1870 the sailing vessels posted on *Lloyd's Loss Book*, were in the proportion of 10·93 per cent. upon the number on the register at the end of 1869, but in 1873 they were 12·63 per cent. upon the number on the register at the close of 1872. Steamers so posted in 1870 were 6·07 per cent. upon the number on the register at the close of the preceding year, but in 1873 the percentage had risen to 9·88 on those on the register at the end of 1872.

"This comparison, comprising losses English and foreign, is necessarily imperfect as applying only to vessels on the register of the United Kingdom, but these are the only reliable figures with which I am acquainted, and as English steamers have probably increased more than foreigners, and the basis of comparison is the same throughout, it may, I believe, be accepted as fairly showing a very serious increase of late in casualties occurring to the general mercantile marine.

"The comparison is instituted between the years 1870 and 1873, because in the former year the distinction between steamers and sailing vessels in Lloyd's tables was for the first time made, and the latter is the latest period obtainable.

"'Missing vessels' which are not posted on the *Loss Book*, in 1872, numbered in all 89, while in 1873 they were 164, an increase in the year of 84·27 per cent. Of those in 1872, 80 were sailing vessels and 9 steamers; in 1873, 148 were sailing vessels and 16 steamers, showing an increase of 85 per cent. and 77·78 per cent. respectively.

"The 'crews' (all told) lost in these missing vessels are believed to have numbered about 1,408 souls in 1872, while in 1873 they are believed to have numbered about 2,290, showing an increase in loss of life last year through this one class of casualty alone of 62·64 per cent.

"These figures cannot be proved to be quite accurate, but the estimate is based upon the numbers of those crews (all told) actually known, and the average per vessel, sailing or steam, is applied to those about which information is not available.

"In conclusion, permit me to recapitulate the facts thus brought out:—

1870 *Compared with* 1873.

	Percentage of	
	Increase.	Decrease.
SAILING VESSELS.		
Registered sailing vessels decreased in number in 1873 by	—	8·62
Sailing vessels posted on *Lloyd's Loss Book* increased by	5·67	—
Proportion of sailing vessels posted to number on register increased by	1·70	—
STEAMERS.		
Registered steamers increased in number in 1873 by	23·59	—
Steamers posted on *Lloyd's Loss Book* increased by	75·36	—
Proportion of steamers posted to number on register increased by	2·91	—

1872 *Compared with* 1873.

	Percentage of	
	Increase.	Decrease.
Sailing vessels missing increased in 1873 over 1872 by	85·00	—
Steamers	77·78	—
Lives lost in missing vessels (known and estimated) increased in 1873 over 1872 by	62·64	—
Vessels, sailing and steam, posted on *Lloyd's Loss Book* increased in 1873 over the average of ten years, to 1873 inclusive	5·69	—

"Commending the foregoing figures to the consideration of those whom they may practically concern, I am," &c.

IV.—*The Bankers' Clearing House.*

The following circular has been issued by the Bankers' Clearing House, showing the transactions of the year 1873-74:—

"Sir,—I beg to forward you the subjoined statistics, showing the working of the Clearing House for the year ending on the 30th April, which is the seventh during which these statistics have been collected. The total amounts for the seven years have been:—

	Total for the Year.	On Fourths of the Months.	On Stock Exchange Account Days.	On Consols Settling Days.
	£	£	£	£
1867-68....	3,257,411,000	147,113,000	444,443,000	132,293,000
'68-69...	3,534,039,000	161,861,000	550,622,000	142,270,000
'69-70....	3,720,623,000	168,523,000	594,763,000	148,822,000
'70-71....	4,018,464,000	186,517,000	635,946,000	169,141,000
'71-72....	5,359,722,000	229,629,000	942,446,000	233,843,000
'72-73....	6,003,335,000	265,965,000	1,032,474,000	243,561,000
'73-74....	5,993,586,000	272,841,000	970,945,000	260,072,000

"The total amount of bills, cheques, &c., paid at the Clearing House during the year ending 30th April, 1874, shows, therefore, a decrease of 9,749,000*l.* as contrasted with 1873.

"The payments on Stock Exchange account days form a sum of 970,945,000*l.*, being a decrease of 61,529,000*l.* as compared with 1873.

"On the other hand, the amounts passing through on the 4ths of the month for 1874 have amounted to 272,841,000*l.*, showing an increase of 6,876,000*l.* over 1873.

"The payments on consols account days for the same period have amounted to 260,072,000*l.*, giving an increase of 16,511,000*l.* over 1863."

V.—*The Stock Exchange Clearing House.*

The following memorandum has been prepared by one of the Editors of the *Journal*:—

Within the last three months a farther extension of the Clearing House principle has been brought into operation, in the institution of a Clearing House on the London Stock Exchange, for the purpose of more expeditiously settling transactions in certain securities to bearer. Both on its own merits, and on account of its indirect effect in varying the figures of the returns of the Bankers' Clearing House, the institution appears to be one of which some account ought to be given in this *Journal*. As regards its own merits, in a statistical aspect, the institution will supply an excellent measure of the activity in certain departments of business, and will supplement and correct the ordinary statistics of bank note circulation, banking deposits, Clearing House returns, and the like. Transactions in securities have usually an intimate connection with the state of the money market, increasing or diminishing as the conditions of that market change. The registration of them on a large scale, which has now become possible through the establishment of a Clearing House on the London Stock Exchange, which is by far the largest *Bourse* in the world, will therefore illustrate in a new way the extent and nature of the various causes which produce changes in the value of money and the entire phenomena of the money market. Unfortunately the Stock Exchange Clearing House as yet only includes a comparatively small number of members, and only deals with transactions in a limited number of stocks, some of them exceedingly speculative; but both defects are being gradually cured, the number of members concerned and the number of stocks dealt with being increased from time to time; and even now, making allowance for these defects, the statistics, it is believed, will be more useful in measuring the course of business in Stock Exchange securities, as affected by the general conditions of the money market, than might at first sight be supposed. There is a great deal of "sympathy" with each other in the stock markets, and the application of the Clearing House principle to a varied list of stocks, which includes an undue proportion of the more speculative class, if it causes error at all, will perhaps do so in the direction of making the variations in the volume of Stock Exchange transactions apparently greater than would be exhibited by a fairer average of the stocks dealt in.

As regards the connection between the Stock Exchange and the Bankers' Clearing House, the necessity for taking note of the new institution arises from the fact that the clearing at the Stock Exchange diminishes the business at the Bankers' Clearing House. The fortnightly Stock Exchange settling days, it is well known, are the busiest days for the Bankers' Clearing House; the daily average clearing, which is usually about 16,000,000*l.*, rising on the Stock Exchange days to 40,000,000*l.* and often to 50,000,000*l.* It has been calculated, however, by the managers of the Stock Exchange Clearing House, that its, institution has diminished the number of cheques passing on the last two occasions but one as follows:—

	£
14th May	7,740,000
29th ,,	10,718,000

A variation of this extent which seems likely to increase for a good while to come, ought certainly to be taken note of as a correction of the Bankers' Clearing House figures.

The utility of the new institution in a statistical view being thus explained, the mechanism may be briefly described. Its principle has been explained as follows:—"The scheme of a clearing house is *primâ facie* very applicable to the dealings of a body like the Stock Exchange. The members, whether brokers and jobbers, are mainly intermediaries, constantly buying and selling a limited number of articles of a specific kind—the brokers on behalf of others, and the jobbers or dealers usually for the sake of immediate or early repurchase or resale. As credits are not long, and all transactions except those for money have to be settled on the same day in each fortnight (the account dealings in consols being exceptionally settled once a month only), the necesary result is that much less stock has finally to be paid for by 'ultimate' buyers or delivered by 'ultimate' sellers, than is represented by the dealings between the settling days. Quite apart from speculation, though that is an additional complication, the same articles have been sold and bought again and again, passing from one intermediary to another. Brokers may have bought and sold for a score or more different clients, the 'balance' of each stock they may have to deliver or pay for to the members of the House in the aggregate being very small. The dealers again may not only have transacted with numberless brokers to whom as a body the 'balance' they will have to deliver or pay for may be small, but they may have had, and in practice almost always have, endless transactions with each other; the most ready way for a dealer to 'undo a bargain,' as the phrase is, that is, to effect the repurchase or resale at a small profit or 'turn,' which is his primary object as an intermediary, is not to go straight to a broker, but to find another dealer who has a bargain of an opposite description to undo. Hence the expediency of a clearing house. It is manifest that instead of stock and money passing for all the numberless transactions which have occurred between settling days, or for the balances which each broker and dealer has to pay for or deliver, every essential purpose would be served by all who have to pay receiving their stock from a central body, or under the direction of that body from those who have to deliver, and by those who have to deliver doing so only to the same body, or under its direction. The balances which each member has on his own account will thus be consolidated. Instead of having a separate settlement with each man he has dealt with, he will practically have one settlement at once with all combined, and the actual stock and money passing will be reduced to a minimum." For technical reasons, however, no more than a partial application of the principle to a certain class of securities, and as yet only to a limited number of that class, has been possible.

Another point also requires explanation in order to understand the sort of statistics which the Clearing House is enabled to publish. The plan, it is explained, is not that of a Clearing House proper. "The simple course, it might be thought, would have been to establish a house which would receive stock from those who had to deliver and pay for it, and deliver stock to the ultimate buyers, receiving their cheques or money in payment. But this plan is at present impracticable. Such a house, to work at all, must have a large guarantee fund; even with such a fund the managers would have to decide on the constantly changing credit of members whose cheques it would either receive or not receive; cases might arise of fraudulent being passed for genuine stock and the like. All these, in addition to the ordinary causes of loss, would make the formation of such a house most difficult, and would tend to constitute it, if established at all, an *imperium in imperio* in the Stock Exchange, to which the privilege of admission would be jealously guarded, and the members of which would virtually insure one another. The arrangement is not an impossible one, and might have its advantages, but it is much too large to be thought of at once, and the evil to be remedied is pressing. The plan adopted is, therefore, for the association to direct the delivery and payment for balances of stock, taking such precautions as may be possible against loss. Each member of the Clearing House makes up before the account a statement of what he has to receive from or deliver to each of the other members. These statements are compared and checked by the managers of the Clearing House, the machinery for checking errors being necessarily rapid; and the managers then direct how the balances of stock are to be dealt with. Those who have to receive on balance are put on one side, and those who have to deliver on the other, and a direction is given as to the distribution of the deliveries, the aim of course being to make them from as few to as few members as possible." The result is that the statistics which the Clearing House publishes comprise two important columns for general use; first, an account of the total stock "made up," as the phrase is, with the Clearing House, for which purpose the totals of both the "take" and "deliver" sides of the return sheets are added together; and *second*, an account of the balance of stock actually to pass. The difference between the two accounts represents the whole effect of balancing transactions by the various Stock Exchange expedients, so as to diminish the actual stock and money passing, the new Clearing House, it will be understood, being partly a substitution for expedients previously in use. The accounts, it should be explained, are not kept in sums of money, but in nominal amounts of stock which are sometimes dealt in, as in the case of Turkish or Spanish stock, at prices which are only about one-half or even one-fifth of the nominal amount of the stock; but the proportion of saving of stocks and money is nevertheless distinctly shown, and that is the principal matter. The proportion, it is anticipated, will also vary at different times according to the increase or diminution of the speculative element in Stock Exchange transactions, which is always a matter of some importance as reflecting certain conditions of the money market.

The first return of the Clearing House was made on the 27th of February last, when the number of members was 49, and the number of clearing stocks 7. At the seventh clearing, viz., on 29th of May, the number of members was 79, and the number of clearing stocks 9. The following is a copy of the complete return published at the latter date, of which, however, as above explained, the first two columns are at present the only essential ones for statistical purposes.

London Stock Exchange Clearing House. Statistics of Seventh Clearing, 29th May Account, 1874. *Number of Members* 79. *Number of Clearing Stocks* 9.

[000's omitted from the amount columns.

Stocks.	Total Stock made up with Clearing House.*	Balance of Stock actually to Pass.	Number of Names Received from Members.	Number of Tickets Issued by Clearing House.	Total Number of Tickets.	Number of Members own Names Returned.	Stock to be Delivered on Members' Tickets.	Stock to be Delivered on Clearing House Tickets.
	£	£					£	£
Egyptian, 1868	1,196,	139,	38	27	65	12	54,	85,
,, '73	11,415,	864,	223	43	266	28	421,	443,
French 5 per cent............	2,231,	220,	26	17	43	14	54,	166,
Italian................	1,614,	142,	14	19	33	11	8,	134,
Peru 5 per cent.	6,381,	794,	86	43	129	14	188,	606,
,, 6 ,,	6,449,	333,	41	36	77	24	38,	295,
Spanish	3,979,	695,	29	38	67	12	64,	631,
Turkish 5 per cent............	8,905,	330,	109	30	139	54	124,	207,
	42,170,	3,516,	566	253	819	169	950,	2,566,
	Shares.	Shares.					Shares.	Shares.
Lombards	22,260,	6,235,	13	21	34	5	390,	6,

* These figures represent the totals of both the take and deliver sides of the return sheets.

The first two columns of the return since its commencement, when analysed, exhibit the following progress:—

Analysis of First Eight Clearings of the London Stock Exchange Clearing House in Thousands of Nominal Amounts of Stock (000's *being omitted*), *and Hundreds of Shares* (00's *being omitted*).

1	2			3		
	First Clearing. Members 49.			Second Clearing. Members 52.		
Stocks.	Total Stock made up with Clearing House.	Balance of Stock actually to Pass.	Percentage of Balance Passing to Stock made up.	Total Stock made up with Clearing House.	Balance of Stock actually to Pass.	Percentage of Balance Passing to Stock made up.
	£	£		£	£	
Egyptian, 1868	760,	144,	19·0	609,	67,	11·0
,, '73	—	—	—	—	—	—
French 5 per cent.	2,477,	399,	16·1	1,873,	247,	13·2
Italian	—	—	—	—	—	—
Peru 5 per cent.	486,	103,	21·2	620,	95,	15·4
,, 6 ,,	602,	119,	19·8	448,	68,	15·2
Spanish	3,576,	682,	19·1	2,942,	520,	17·7
Turkish 5 per cent.	2,860,	279,	9·8	5,244,	244,	4·7
Total	10,761,	1,726,	16·0	11,736,	1,240,	10·6
	Shares.	Shares.	Shares.	Shares.	Shares.	Shares.
Lombards	6,5	1,7	26·2	10,7	2,1	19·6

1	4			5		
	Third Clearing. Members 51.			Fourth Clearing. Members 51.		
Stocks.	Total Stock made up with Clearing House.	Balance of Stock actually to Pass.	Percentage of Balance Passing to Stock made up.	Total Stock made up with Clearing House.	Balance of Stock actually to Pass.	Percentage of Balance Passing to Stock made up.
	£	£		£	£	
Egyptian, 1868	602,	67,	11·1	955,	135,	14·1
,, '73	—	—	—	2,109,	443,	21·0
French 5 per cent.	1,861,	194,	10·4	1,515,	160,	10·6
Italian	—	—	—	982,	124,	12·6
Peru 5 per cent.	848,	139,	16·4	1,641,	297,	18·1
,, 6 ,,	698,	89,	12·8	1,229,	165,	13·4
Spanish	2,752,	532,	19·3	2,019,	410,	20·3
Turkish 5 per cent.	5,952,	288,	4·8	5,734,	385,	6·7
Total	12,713,	1,307,	10·3	16,184,	2,117,	13·1
	Shares.	Shares.	Shares.	Shares.	Shares.	Shares.
Lombards	39,8	5,3	13·3	27,9	3,8	13·6

Analysis of Clearings of London Stock Exchangs Clearing House—Contd.

1	6			7		
	Fifth Clearing. Members 56.			Sixth Clearing. Members 62.		
Stocks.	Total Stock made up with Clearing House.	Balance of Stock actually to Pass.	Percentage of Balance Passing to Stock made up.	Total Stock made up with Clearing House.	Balance of Stock actually to Pass.	Percentage of Balance Passing to Stock made up.
	£	£		£	£	
Egyptian, 1868	751,	80,	10·6	1,154,	83,	7·2
,, '73	3,608,	400,	11·1	5,472,	696,	12·7
French 5 per cent.	1,890,	117,	6·2	1,990,	280,	14·1
Italian	1,428,	86,	6·0	1,232,	180,	14·6
Peru 5 per cent.	5,578,	656,	11·8	5,095,	412,	8·1
,, 6 ,,	4,177,	260,	6·2	4,916,	337,	6·9
Spanish	1,870,	348,	18·6	4,480,	805,	18·0
Turkish 5 per cent.	5,644,	285,	5·0	7,323,	270,	3·7
Total	24,946,	2,231,	8·9	31,662,	3,063,	9·7
	Shares.	Shares.	Shares.	Shares.	Shares.	Shares.
Lombards	44,7	6,1	13·6	32,8	4,0	12·2

1	8			9		
	Seventh Clearing. Members 79.			Eighth Clearing. Members 87.		
Stocks.	Total Stock made up with Clearing House.	Balance of Stock actually to Pass.	Percentage of Balance Passing to Stock made up.	Total Stock made up with Clearing House.	Balance of Stock actually to Pass.	Percentage of Balance Passing to Stock made up.
	£	£		£	£	
Egyptian, 1868	1,196,	139,	11·6	836,	56,	6·7
,, '73	11,415,	864,	7·6	10,397,	1,507,	14·5
French 5 per cent.	2,231,	220,	9·9	1,737,	145,	8·3
Italian	1,614,	142,	8·8	1,533,	130,	8·5
Peru 5 per cent.	6,381,	794,	12·4	6,116,	481,	7·9
,, 6 ,,	6,449,	333,	5·2	5,007,	262,	5·2
Spanish	3,979,	694,	17·4	2,763,	461,	16·7
Turkish 5 per cent.	8,905,	330,	3·7	5,343,	296,	5·6
Total	42,170,	3,516,	8·3	33,732,	3,338,	9·9
	Shares.	Shares.	Shares.	Shares.	Shares.	Shares.
Lombards	22,3	6,2	27·8	16,6	3,6	21·7

The indications of the above figures, it is believed, correspond to what is otherwise known of the actual course of business on the Stock Exchange during the last three months. The increasing amount of transactions in several clearings without any corresponding increase of the number of members, corresponds to an actual revival of business which occurred, in connection, it is supposed, with a certain condition of the money market. At the same time the proportion of the balances of stock to pass to the stock "made up," appear as a rule to diminish with the increase of transactions, although the amounts of the balances may be greater, partly an indication, it is believed, of the increase of the speculative element in the business, whenever there is great activity in it from any cause. It is perhaps, too soon, however, to draw any conclusive inferences, and the object of the present memorandum, is only to show the direction in which the statistics may be useful.

VI.—*Poor Law Administration in* 1871-72.

The following summary of the last report of the Local Government Board in relation to the administration of the poor law, appeared in the *Times* of 7th January last:—

"During the parochial year 1871-72 the sum expended for the relief of the poor in England reached an amount which it had never previously attained. Seven clear years ago—that is, in 1864-65—it stood at 6,265,000*l.* With but a slight check it has annually risen since, standing last year at 8,007,000*l.* or fully 1,750,000*l.* above 1864-65. It is also nearly 1,500,000*l.* higher than it was in 1862-63, when the cotton famine was doing its worst with Lancashire's great industry. If we look back twenty years we shall find that 1871-72 surpassed 1851-52 by 3,110,000*l.* The yearly statistics of poor relief expenditure are shown by the table hereunder. The rate per head is computed upon the estimated population of each year, and the columns in which these data are entered indicate that the expenditure has, on the whole, increased faster than the population:—

Parochial Years.	Expenditure for Relief of the Poor.	Increase or Decrease* on Immediately Preceding Year.	Increase or Decrease* per Cent.	Rate per Head on Population.	Increase or Decrease* of Rate per Head.
	£	£		*s.* *d.*	*d.*
1865–66....	6,439,515	—	—	6 1¼	—
'66–67....	6,959,841	520,326	8·1	6 6¼	5
'67–68....	7,498,061	538,220	7·7	6 11½	5¼
'68–69....	7,673,100	175,039	2·3	7 0¾	1¼
'69–70 ...	7,644,307	28,793*	0·4*	6 11½	1¼
'70–71....	7,886,724	242,417	3·2	6 11¼	−¼*
'71–72....	8,007,403	120,679	1·5	6 11½	−¼

Decrease marked with the asterisk (*).

"Statistics of a later date, both of pauperism and of certain items of poor relief, exhibit a marked decrease when compared with the figures of 1871-72. It may be therefore safely inferred that the next poor rate return will show a fall in the tide of expenditure.

"The metropolis holds an exceptional position in the administration of the poor law in consequence of about one-third of its relief being borne by a common fund to which the Unions contribute according to their rateable value, and from which they are recouped according to the pressure they respectively suffer under certain defined charges. Heavy as the increase of poor relief has recently been in the kingdom generally, it has been greatly outstripped in proportionate development by the London unions as a body. The sums expended during the seven years in the metropolis for relief alone were as follows:—

"1865-66, 976,262*l.*; 1866-67, 1,175,363*l.*; 1867-68, 1,316,758*l.*; 1868-69, 1,415,233*l.*; 1869-70, 1,465,874*l.*; 1870-71, 1,646,103*l.*; 1871-72, 1,756,929*l.*

"Here, then, in six years the cost of relief was swollen by 780,000*l.*; or 80 per cent., while the increase in all England, and therefore inclusive of the metropolis, was 24 per cent.

"The cost of relief is divided in the official tables between several subordinate heads, and the progressive rate of each is worth determining.

"First, with regard to all England, we can make the following comparison of items at an interval of six years:—

All England.	1865-66.	1871-72.	Increase in 1872.
	£	£	£
In-maintenance	1,188,784	1,515,790	327,006
Out-door relief	3,196,685	3,583,571	386,886
Lunatics in asylums	566,481	742,483	176,002
Loans repaid with interest	180,746	278,566	97,820
Salaries and rations of officers	730,704	871,402	140,698
Other expenses of, or immediately connected with, relief	576,115	1,015,591	439,476
Total	6,439,515	8,007,403	1,567,888

"Now, it will be found that the rate of increase exhibits great variations. In-maintenance, the cost of providing the workhouse paupers with food, clothing, and necessaries, has increased 27 per cent., while the out-door relief has increased 12 per cent. The charge for pauper lunatics in asylums is more now than in 1865-66 by 31 per cent. The salaries and rations of officers, under which head superannuations are placed, are 19 per cent. higher, while the miscellaneous head 'other expenses' displays the common tendency of all such receptacles of unclassed charges to a large and indefinite expansion. In the case before us, six years have augmented the sum by 76 per cent. A greater outlay for the purpose of getting free of debt is an increase of a more satisfactory kind; the repayment of loans with interest has increased to the extent of 54 per cent.

"The corresponding disbursements by the metropolitan unions are set out hereunder:—

The Metropolis only.	1865-66.	1871-72.	Increase in 1872.
	£	£	£
In-maintenance	339,087	433,215	94,128
Out-door relief	233,569	374,736	141,167
Lunatics in asylums	112,658	159,530	46,872
Loans repaid, with interest	50,864	101,235	50,371
Salaries and rations of officers	108,596	168,745	60,149
Other expenses of, or immediately connected with, relief	131,488	519,468	387,980
Total	976,262	1,756,929	780,667

"Here, with the exception of the first item, the rates of increase, as compared with those just noted for the country generally, are very much heightened. The in-maintenance increased but 28 per cent., while the rate of growth in the out-door relief was fivefold, the average of England being in London no less than 60 per cent. Lunatics in asylums cost more by 41 per cent. The salaries and rations of officers increased 60 per cent., or by more than threefold the average proportionate growth. But the miscellaneous column of the metropolitan unions is that which will excite most attention. It has risen, in round numbers, from 131,000*l.* to 519,000*l.*, or 295 per cent. The London unions are, however, paying off loans at a duplicate rate—101,000*l.* now, as against 51,000*l.* in 1865-66.

"In comparing the expenditure of 1871 and 1866 it should be remembered that in the first-named year provisions were dearer than in 1866, the price of wheat being 57*s.* 1*d.* against 43*s.* 6*d.* per quarter.

"From the expenditure we turn to pauperism. It is the custom of the central office to have two enumerations of the paupers yearly—one on the 1st of July and one on the 1st of January. The mean annual number of all classes of paupers computed on the midsummer and midwinter musters is shown for the seven years ended at Lady-day, 1872, and consequently for the same period as that used in the statistics of relief given above, in the next table:—

Years ended at Lady-day.	Population.*	The Mean Number of Paupers of all Classes (including Children) at one time in Receipt of Relief in England.			Ratio per Cent. of Paupers Relieved on the Population.
		In-door.	Out-door.	Total.	
1866........	21,100,000	132,776	783,376	916,152	4·3
'67........	21,320,000	137,310	794,236	931,546	4·4
'68........	21,540,000	150,040	842,600	992,640	4·6
'69........	21,760,000	157,740	860,400	1,018,140	4·7
'70........	21,980,000	156,800	876,000	1,032,800	4·7
'71........	22,704,108	156,430	880,900	1,037,360	4·6
'72........	23,000,000	149,200	828,000	977,200	4·2

* The population for 1871 is that given by the census; for the other years it has been estimated.

"During the last five years of the table we have a permanent army of paupers numbering on the average upwards of 1,000,000. But it is satisfactory to note in 1872 even a moderate decline from that dependent and thriftless host. In proportion to population the ratio in that year was lower than it had been for upwards of twenty years—namely, 4·2 per 100, or 42 per 1,000 persons. The number of paupers on the out-door relief list is upwards of five times that to be found in the workhouses. The in-door are wholly supported by the rates, but the out-door paupers are merely assisted by the doles of the relieving officer. This is easily shown to be the case. A sum of 3,584,000*l.* was distributed to 828,000 out-door paupers during 1871-72. This was rather less than 3*d.* a-day per pauper—a sum with which no one can provide himself with food, raiment, and house-room in this country. The truth is notorious that the bulk of the out-door allowances is so much relief in aid of wages, especially in the agricultural districts of the south and south-west of England. The manufacturing districts are, however, tainted with the same evil. Four years ago Mr. Goschen stated that relief 'in aid of wages is given to a greater extent in Lancashire than in any other county.' The adult able-bodied paupers, the class for whom the workhouse was more especially designed as the most efficient test of their claims, seem to come on the out-door relief books in rather larger proportion than the paupers generally. This is evident upon an inspection of the statistics.

Years ended at Lady-day.	The Mean Number of Adult Able-Bodied Paupers (exclusive of Vagrants) at one time in Receipt of Relief in England.			Ratio per Cent. of Adult Able-Bodied Paupers on the Total Number of Paupers of all Classes Relieved.
	In-door.	Out-door.	Total.	
1866........	19,363	126,460	145,823	15·9
'67........	19,740	128,685	148,425	16·0
'68........	23,680	143,110	166,790	16·8
'69........	24,960	145,750	170,710	16·8
'70........	25,200	149,600	174,800	16·9
'71........	24,700	147,760	172,460	16·6
'72........	22,000	128,930	150,930	15·4

"During the last five years the average number of able-bodied in-door paupers has been 24,000, while 143,000 were obtaining out-door relief. This is as six of the latter to one of the former, a higher proportion than obtains in the general pauperism.

"As we have already noticed, there was a marked diminution of pauperism in the year 1872-73. The monthly statistics at the close of the last parochial year showed 92,000 recipients, or 10 per cent. less than at the corresponding period of 1871-72. Happily all the returns since published are confirmatory of the same downward tendency of numbers. The modern practice by which the poor law guardians from various unions meet to confer upon the administration of relief, has the entire approval of the Local Government Board, who seem to regard it as one of the causes of the current diminution of pauperism:—

"'It is probable that much of this decrease in the number of the recipients of relief, and the amount of the relief afforded to them, may be owing to other causes, and particularly to the general prosperity and the abundant employment in the country. But we also think that the proceedings which have been taken to bring the subject prominently before the guardians must have had considerable effect.'

"The Board's attention has been in a very special manner directed to the large proportion of out-door paupers on the 1st of January, 1872; they say that in all England it was as 5 to 1; in England, less the metropolis, as 6 to 1, and in the metropolis alone as 2½ to 1. They have computed for the report similar ratios for each union. An inspection of these figures reveals at once the well-managed and the mismanaged unions; frequently the good and the bad lying side by side in striking contrast. But nothing more remarkable in this way will be found in the report than the illustration furnished by Mr. Andrew Doyle from his own district. He has compared four well-administered unions in Shropshire with four very indifferent ones in Brecknockshire:—

"'The rate in the pound for relief in the Shropshire unions is less than 5*d.*, while in the Brecknock unions it exceeds 1*s.* 2*d.*; at the same time the respective rates of pauperism are 27 and 56 per 1,000 of population.'

"Yet, as Mr. Doyle assures, the industrial and social conditions of each group are otherwise alike.

"The Board proceeds to notice the steps they have taken with regard to the metropolitan unions, the sick and the imbecile asylums. The most interesting portion under this head is the account of the excellent use of the Poplar union in testing the able-bodied pauperism of its own and other districts. An arrangement was made by which several of the London unions were empowered to send their able-bodied applicants to the well-disciplined workhouse of the Poplar union instead of offering them orders on their labour yards. The report says:—

"'Notwithstanding the considerable number of unions which have availed themselves of this privilege, the number of able-bodied paupers who have accepted the relief, or having accepted it have remained in the workhouse, has been so small that although the workhouse will contain 768 persons, there were in it at the close of last year only 166 inmates.'

"The number of lunatics and idiots chargeable to the poor rates appears to have increased 1,691, as compared with the previous year. On the first of January, 1872, there were 50,135 of this afflicted class, of whom 29,091 were in asylums, 13,608 in workhouses, and 7,436 residing with relatives, or in lodgings, or boarded out.

"The boarding-out of pauper children was authorised by a general order in November, 1870. It does not appear to have met with much favour among the guardians. Ten unions, at the date of the report, had 169 children boarded out under the provisions of this order.

"Vagrancy, which two or three years ago caused so much trouble to the workhouse officer, has, under the stringent measures taken for its reduction, much decreased. The numbers of vagrants for all England on New Year's Day, 1869 to 1872 were respectively, 7,020, 5,430, 3,735, 3,378. In the metropolis the successive numbers were 1,832, 1,627, 1,067, and 828. On the first of July, 1872, the number for all England was 2,372; for the metropolis, 489 only."

VII.—*The Increase of European Armaments.*

From the *Times* (Berlin correspondence) 25th May, 1874:—

"In the meantime, military preparations continue as briskly as ever. Mr. Krupp, to extend his works, has raised a loan of 12,000,000 thalers, and will supply the last barrels for the new German artillery by the beginning of next year. By about the same time the whole army will be equipped with the Mauser rifle, and the organisation of the force be complete. I need not dwell upon the exertions to the same end made in France; but it is, perhaps, less known that Marshal MacMahon has sent a number of officers to Austria to study the military arrangements of that empire, and ascertain their probable efficiency in case of an emergency. In Russia active steps are being taken to enforce the first general conscription in the coming autumn. It is not a little curious that while an army of 3,000,000 is being avowedly formed there, nearly all the leading papers of St. Petersburg should continue to represent Germany as a most bellicose nation, bent upon going to war with France and the rest of the world as soon as possible. It was, indeed, hardly to be expected that the friendly intentions of the Russian Empire towards this Government would exercise more influence upon his subjects' feelings now than in 1870. The habit of writing down Germany is too general in Russia since the revival of the national feeling, twenty years ago. It is least likely to be abandoned at a time when the neighbour, formerly only disliked as a pedant and an intrusive disciplinarian, becomes an object of dread as a soldier and a thinker. Yet it was not foreseen that a few weeks after the exchange of the most cordial civilities between the Emperors Alexander and William the St. Petersburg press would be permitted to charge this country with sinister designs. But for the anti-German feeling extending to leading circles this would be impossible.

“The increase in the military forces in the principal European States in the last fifteen years is illustrated by the following table:—

	Year.	Total Army.	Army Available for Offensive Purposes.
Austria	1859 ’74	634,000 856,980	443,800 452,450
Increase	—	222,580	8,650
European Russia and Caucasus	1859 ’74	1,134,200 1,401,510	604,100 665,810
Increase	—	267,310	61,710
Asiatic Russia	1859 ’74	89,950 118,300	75,650 87,560
Increase	—	28,350	11,900
Italy	1859 ’74	317,650 605,200	156,450 322,000
Increase	—	287,550	165,550
Germany	1859 ’74	836,800 1,261,160	483,700 710,130
Increase	—	424,360	226,430
France and Algeria	1859 ’74	640,500 977,600	438,000 525,700
Increase	—	337,100	87,700
Belgium	1859 ’74	80,250 93,590	53,800 59,140
Increase	—	13,340	5,340
Holland	1859 ’74	58,550 64,320	42,200 32,430
Increase	—	5,770	9,770 Decrease.
Great Britain	1859 ’74	245,800 478,820	77,300 71,860
Increase	—	233,020	5,440 Decrease.
Denmark	1859 ’74	57,550 48,700	38,450 30,500
Decrease	—	8,850	7,950
Sweden and Norway	1859 ’74	134,900 204,510	46,300 54,910
Increase	—	69,610	8,610

"The number of men contributed for military purposes by every million of inhabitants in the principal States may be seen from the following table:—

	Number of Soldiers for each Million of Inhabitants.	
	The various Classes of the Army.	Available for Offensive Purposes.
Austria	27,821	15,674
European Russia and Caucasus	20,086	10,021
Italy	25,175	13,863
Germany	35,815	20,624
France and Algeria	29,059	16,290
Belgium	20,333	13,013
Holland	19,230	9,894
Great Britain	16,088	2,935
Denmark	30,392	19,748
Switzerland	77,624	40,251
Servia	105,913	69,977
Roumania	30,196	10,029

"The Servians and Swiss having no army, but only a militia, it follows from the above that universal conscription has nowhere become so oppressive as in Germany. Next to Germany follow France, Austria, and Italy, whose offensive forces taken together do not much exceed the total that could be summoned for defensive purposes by Germany."

VIII.—*The Movement of Agricultural Wages in Europe.*

From a paper by Mr. T. E. Cliffe Leslie in the *Fortnightly Review* for June, 1874:—

"In Belgium, where farm wages had been rising for twenty years, they have lately sprung in some districts from 2 fr. 50 c. to 3 fr. 50 c. and upwards. In France, M. de Lavergne estimated the general rise in the decade 1855-65 at 20 per cent., but it was much greater in many places, and continued down to the war. Dr. Baur and Professor von der Goltz put it at 60 per cent. in the north of France in the last twenty-six years; and one cannot doubt that the rise throughout the country would have been greater, and would be still going on, but for the late war, the drain of money which has followed it, and the uncertain state of political affairs. In Germany there are four different classes of agricultural labourers (*Dienstleute, Gesinde, Einlieger*, and *Hausler*), and a calculation of the rise in wages is much embarrassed by differences in the modes of payment, and payments in kind; but for the present purpose we need concern ourselves only with the earnings measured in money of the two classes (called *Einlieger* and *Hausler*, the latter having cottages of their own, and the former being lodgers), who share the designations of *Tagelohner* and *freie Arbeiter*, day labourers and free labourers. Dr. F. von der Goltz, Professor of Rural Economy in the University of Königsberg, a writer of great practical experience, in the new edition of his work on the German agricultural labourer's question, measures in money the rise of the wages of the classes of labourers referred to at 100 per cent. in the Rhine Province, and from 50 to 60 per cent. in the eastern province of Prussia, in the last ten to twenty years.[*] A table of agricultural wages in the last number of *The Journal of the Agricultural Society* for Rhine Prussia puts the rise in one district at from 75 to 100 per cent. in the last four years, in another district at 200 per cent. in the last twenty years, and in a third at 200 per cent. in the last ten years.[†] At Tübingen in Würtemberg, Dr. Gustav Cohn tells me the rate was 1*s.* 2*d.* a-day in 1850-55; 1*s.* 4*d.* in 1860-65; 1*s.* 8½*d.* in 1866-70; and is 2*s.* 0½*d.* in 1874. At Wissen, in the Rhine Province, on the border of Westphalia, Mr. W. Wynne, a resident English engineer, states: 'Ten years ago agricultural wages were 1*s.* 2½*d.* a-day, measured in money; about that time railway works commenced, and they rose very quickly. At present they are about 2*s.* a-day—a fall after the exaggerated rates of last year.' Mr. White, British Consul at Danzig, one of the best informed and most intelligent Englishmen in Germany, although remarking (April 27th) that 'the price of labour in Germany has quite lately entered into a retrogressive stage,' measures the general rise in the price of agricultural labour at from 50 to 100 per cent. in the last twenty years, and speaks of great alarm on the part of farmers with respect to the future. The foregoing estimates are in accordance both with facts ascertained by myself in several visits to Germany, and with recent information from authorities so high as Professor Nasse of Bonn, Member of the Prussian Parliament, Mr. W. T. Mulvaney of Düsseldorf,[‡] and Herr Bueck, formerly secretary to an East Prussian Agricultural Society, and now to an important society in Rhenish Prussia. It may be concluded from these authentic data that the rise of farm wages in some parts of Germany much exceeds the rise, according to Mr. Caird's estimate, in England."

IX.—*Mineral Statistics of the United Kingdom.*

The following remarks appear in the last report by Mr. Hunt, F.R.S., Keeper of the Mining Records, on the mineral produce of the United Kingdom in 1872:—

"When the *Mineral Statistics* for 1871 were issued, hopes were expressed that the returns for 1872 would be published at an earlier period than those for that year had been, and that the statistics in future—by the operation of the new acts relating to mines and collieries—would be yet more exact than they had hitherto been. These hopes have not, however, been realised. The Metalliferous Mines Regulation Act, 1872, fixes, unfortunately, the 1st of August as the period when the returns of produce are to be made to the inspector, although all the ores raised in the previous year will have been dressed and sampled, and sold many months earlier. This year (1873) many of the returns have not been sent to the inspector from the mines until late in November. This explains one of the causes which have prevented an earlier issue of the *Mineral Statistics* for 1872. Again, the act requires only a return of the ores raised. As such a return would not convey any useful information, it becomes necessary in nearly every case to obtain either the value of the ores or their percentage produce of metal. This has occasioned considerable additional labour in visiting the mines, or in corresponding with the managers of mines and others. For the ores raised in Cornwall and Devonshire it has been thought advisable to publish the returns made to the Stannary Court. These, together with the details of the 'public ticketings' for copper ores in Cornwall and at Swansea, also published, will enable any one to check the estimated quantities of metal produced and the values given. As it respects coal it has become a question, seeing how closely the progress of our manufacturing industries is connected with the production and cost of fuel, to determine for each year, with all possible accuracy, the rate of increase in the production of coal from the collieries of the United Kingdom. Hitherto the quantity of coal raised has been arrived at by issuing circular forms to all the coal owners, requesting a return to the Mining Record Office of the quantity of coal produced from each colliery. These returns have been generally freely given, it being always very distinctly understood that they would be treated as confidential and used only to compute the produce of districts. Up to 1871 these voluntary returns formed the basis upon which the returns of coal given in the *Mineral Statistics* were computed. Circumstances, beyond control, in 1871 rendered it imperative to adopt instead the returns which had been made to the colliery inspectors, and these gave a rate of increase above that which was the rate in previous years. Again, for the year 1872, under the operation of the Coal Mines Regulation Act, 1872, the returns made by the inspectors to the Secretary of State for the Home Department are the sources from which the production of coal given in the following pages are drawn, and the only sources available. The operation of clause 38 of this act is to limit the examination of those returns to the inspectors and the Secretary of State. Consequently the Keeper of Mining Records has not been permitted to examine them, and he has no means of ascertaining whether or not errors have arisen in making those returns, or in the computation of the aggregates, when they are made. This has been done in former years with respect to the returns received by this office, in which errors have been often detected, by visiting the districts and ascertaining on the spot, from every available source, the correctness or otherwise of the quantities given. The only means by which the Keeper of Mining Records is this year enabled to check the returns as they are now given is by a cautious examination of the distribution of the coal. This has been attempted on a more extended scale than usual. Returns have been most liberally furnished by the railways and canals; and the quantities of coal exported or sent coastwise have been obtained from the Parliamentary Returns.

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[*] "*Die ländliche Arbeiterfrage.* Zweite Auflage, 1874, p. 125.

[†] "*Zeitschrift des landwirthschaftlichen Vereins fur Rheinpreussen.* Mai 1874, p. 158.

[‡] "Formerly Poor Law Commissioner in Ireland, but for many years past the chief of great mining and other industrial enterprises in the Ruhr Basin and the Rhine Province."

"A tabular summary of railway and canal distribution of coal in the years 1871 and 1872 is published in the introduction, which shows the increase and decrease on each railway in 1871 and 1872. The total increase amounts to 4,508,183; the decrease to 202,566; the actual total increase being thus 4,305,617. Another summary shows the shipments of coal. The total increase is 1,109,278; the total decrease 1,409,492; the net actual decrease on these shipments being 300,214. Mr. Hunt continues:—

"The total increase in the quantity of coal carried by railways and by canals in 1872, as compared with that distributed in 1871, as shown in the returns obtained, is 4,305,617. There are some not very important lines, carrying coal, from which returns have not been received, and we have no returns of the quantities carried by carts or private railways or trams, directly from the pit's mouth to the manufactory, or for the supply of towns. This, however, would not appear to have been largely increased over former years. A computation of the coal used in our metallurgies, which is based upon information received directly from the smelters and ironmasters, shows that in that direction the increase in consumption has been very small—6,073 tons. The consumption of coal in the iron manufacture is computed, upon the information furnished to the Royal Coal Commission, at the rate of three tons of coal used, for all purposes, to each ton of pig iron produced. For the year 1872, as will be seen in the *Pig Iron Manufacture Return*, the Mining Record Office has sought and obtained, for the first time, the returns of the coal used from nearly all the blast furnace establishments. As the result of the economy which has been rigidly pursued since the advance in the price of coal, we have only 51 cwt. of coal given as used for each ton of pig iron produced. This will give the quantity used in 1872 as 17,191,918 tons only. As it is probable that the quantity given it 1871 is in excess, both years have been computed in the table at the same rate, for strict comparison. It has been shown that the increased quantity of coal carried by the railways is above 4,305,617 tons. It is thought, however, that the following estimation, made with great care, will have a very close approximation to the truth, as showing the total increase:—Railways and canals, 1872, increased 4,600,000 tons; exports, 1872, increased 450,505 tons; iron and other metallurgies, 1872, increased 6,073 tons; the quantities used at collieries and in mines estimated increase 10,000 tons; coal carted or sent by private rail or tramroads, to ironworks, manufactures, and towns, which does not appear in the above returns, estimated increase 250,000 tons. In all, 5,316,578 tons. Coastwise shipments, decrease 300,214 tons. Actual estimated increase 5,016,364 tons. This leaves about 1,000,000 tons of coal to be accounted for, which, out of the large quantity which we are now producing, may appear to be but a small amount. It is, however, hoped that such arrangements will be made in future years as will enable the Mining Record Office to present a yet more closely accurate return of the production and of the distribution of our fossil fuel. To enable this to be properly accomplished, it is hoped that the coal owners will express upon the returns made to the inspectors their consent, according to the regulations of the act, that the Keeper of Mining Records shall 'see the same,' remembering that 'the individual return' will be used only that he, with the sanction of 'the Secretary of State, may publish the aggregate results of such returns.'

"The total value of the metals produced is as follows:—Coal and other minerals raised in the year 1872—metal, value of, 22,070,447*l.*; coal, ditto, 46,311,143*l.*; minerals, earthy, &c., 1,811,826*l.* In all 70,193,416*l.* The increase in total value, amounting to 12,871,523*l.*, is chiefly due to the additional cost in 'getting' each ton of coal."

X.—*Obstacles to Co-operative Production.*

From an address by Mr. Brassey to the Annual Conference of the Co-operative Societies held at Halifax:—

"A ready means of applying the principle of limited liability to all descriptions of business was created by the Joint Stock Companies Act of 1862. That enactment gave great facilities, for the sale of their property to joint stock companies, to men at the head of large concerns, who were tired of hard work, and anxious to hand down to their families an inheritance secured from the risks and fluctuations of trade.

"And, while there were many seeking to exchange the wear and tear of business for the comparatively easy life of the country gentleman, there was a large body of inexperienced and sanguine investors, who had deluded themselves with the belief that it was possible to conduct the most intricate operations of industry successfully, without experience and without that constant personal devotion to administrative details, which the individual manufacturers whose property they had purchased had found it essential to bestow.

"It it well known that in numerous instances the purchasers have sustained a serious loss. In some cases the prices paid have been excessive, and the failure has resulted from the exaggeration of the capital account. But the explanation is more commonly to be found in the imperfect control exercised by a board of directors, assisted by a salaried manager, as compared with the administration of the individual employers.

"Even in the choice of an agent, representative, or manager, a private individual has advantages over a board. Take the case of a railway contractor. The contracts for a long line of railway are subdivided, for the purposes of the supervision of the work, into sections rarely exceeding eight to ten miles in length. If the works are unusually heavy, the sections are shorter in proportion. A subagent is placed in charge of each section, and an experienced agent has the general direction of the whole contract. The principal contractor for the undertaking, by paying frequent visits of inspection, has opportunities of becoming acquainted with every sub-agent in his employ. He observes the progress made on his section. He can test his capability of dealing with every kind of practical engineering difficulty, by moving him from railway to railway, and putting him in charge of work in districts totally dissimilar in their physical character and resources. Gradually, those employed in a subordinate capacity have an opportunity of showing their powers; and yet, while there is ample scope for individual merit, the supervision of the agent having the general charge, will prevent the mistakes of a subordinate from producing very serious consequences. Thus, with the lapse of time, and without any grave risk of loss, the contractor may form an opinion as to who are his most trustworthy sub-agents, and can select principal agents from among their number with confidence; because their powers will have been thoroughly tested in a subordinate capacity. Here it will be obvious that long experience and continuity of management are essential. A board will make appointments upon the faith of testimonials. The private individual will trust to personal observation.

"Again, administrative success depends upon the knowledge and management of details. The art of organising large bodies of workmen will only be obtained by previous experience on a smaller scale. The general supervision of subordinates will be most effectually exercised by one who, by close observation on the spot, whether in the tunnel, the workshop, or the factory, has learned how to discharge in his own person the duties he has delegated to others. The greatest commanders and administrators have ever been consummate masters of detail. Napoleon's arrangements for the marches, undertaken by his vast armies, are admirable for the forethought and the care wisely bestowed upon details. A council or a board, only occasionally meeting, cannot manage a business; and, unless efficiently represented by their officers and servants, they are practically powerless. In a commercial point of view, great profits in productive industry are generally obtained by infinite small economies. Directors in a board room can effect nothing in this way. Every economy of expenditure must be suggested by close and constant observation of the processes by which materials are prepared, and labour applied to the execution of the work.

"In the organisation of co-operative production, it is essential to secure the services of individuals competent to take the general management. I am confident that the manual operations will be skilfully and probably more diligently performed in a co-operative establishment. The personal interests of the workmen will be so directly advanced by their application and perseverance, that they will naturally work hard. But their best efforts will fail to ensure a satisfactory result, unless the general organisation is perfect also.

"This organising faculty is a rare gift, and it must be combined with long experience and excellent judgment, or the commercial result cannot be satisfactory. Many there are who possess, in an eminent degree, inventive skill, and have powers of persuasive speech, which enable them for a time to command great influence in financial circles. When, however, they come to deal with practical questions, they fail; because mechanical and scientific ability will not command success, unless united with the qualities of prudence and diplomatic tact in the conduct of negotiations, both with the trade out of doors and with the workmen in their employ. Above all there must be integrity and high-minded resolution to withstand the temptations that come from the love of money, and operate so strongly on the minds of men of slender means and great ambition.

"We have the most conclusive evidence that the administrative powers, of which I speak, are as rare as they are essential, in the high salaries, which men possessing such qualifications often obtain. I do not now refer to the managers connected with the large joint stock companies, whose technical and practical experience is indispensable to supply what is wanting in a board of directors, appointed by shareholders to manage a business, of which they have no knowledge. I speak of private firms, where the partners, with the most complete practical knowledge of the qualification required, give high salaries; because it is for their interest to do so. When shall we find co-operative shareholders ready to give 5,000*l.* a-year for a competent manager? And yet the sum I have named is sometimes readily paid by private employers to an able lieutenant.

"It is because there has been in co-operative establishments a reluctance to pay what is necessary to enlist first-rate ability in the management of the business that their operations have hitherto been attended with very partial success. I believe that only personal experience of the difficulties of the task would induce a body of workmen to reserve from their earnings a sum sufficient to secure the services of competent leaders.

"I would, therefore, earnestly advise those interested in co-operative production to discourage attempts to commence on a large scale a business difficult to manage. The policy suggested is more practicable as well as more prudent. A moderate capital is easily obtained. Large funds are not rapidly procured. Where only a few hands are engaged, the government may be conducted on a purely democratic basis. Where the energies of a multitude are to be combined, there must be an enlightened despotism.

"In the case of a co-operative establishment, the persons entrusted with plenary powers must, as a matter of course, be subject to the control of the contributors of the capital; but their control should be exercised only at stated, though sufficiently frequent intervals. It was rightly pointed out by Mr. Morrison, in the debates at the last conference of co-operative societies, that, without the concentration of management among a limited number of persons, it would be impossible to preserve the unity of tradition and administration, which are essential to establish the reputation of a factory or workshop, and to secure for the articles therein produced the high prices consumers are always ready to pay for goods of undoubted quality.

"The appointment of the manager by popular election,—the electors being the handworkers, who are to serve under the chief, selected by themselves,—is quite compatible with continuity of management. In a trading concern, the acting partner or manager, who has personal control, is rarely obtained by hereditary succession. It is seldom that a man of commercial genius has a worthy successor in his son; hence it may be anticipated that the elective principle will be at least as well calculated as the hereditary to protect the workmen from the disasters which must inevitably be caused by incapacity in the management.

"These considerations would have led to the more rapid establishment of co-operative societies of production; unless there had been the formidable difficulties already set forth, to be surmounted. The most recent report shows that the number of these societies may almost be counted on the fingers. Though some of the experiments actually tried have been successful, the failures have been more numerous than the successes. . . . .

"One more suggestion, and I close my remarks on this aspect of the case. In many descriptions of enterprise the commercial result cannot be ascertained until after an interval of time has elapsed, too long to be tolerable to a body of workmen dependent on their weekly wages. I again choose an illustration from the experiences of the railway contractor. Take the case of a concession for a long line of railway on the continent. The first conception of the project will probably come from some local engineer. He makes a rude preliminary survey of the country to be traversed. He comes to England with his rough studies to seek the financial aid and larger professional experience of one of our eminent engineers or contractors. The negotiations proceed, and the English promoters make a second and more careful examination of the scheme, involving a repetition of the original survey. Plans and an estimate are prepared at considerable expense, and negotiations are thereupon commenced with the Government within whose territories the proposed railway will pass. Weary months, and sometimes years, elapse before a decision is obtained. I will assume the decision to have been favourable, and that a concession has been granted. Then follows the execution of the works which, if the length of the railway is considerable, may probably occupy a period of three years. While the construction is progressing, financial arrangements must be made, in order to form a company, to take over the concession from the contractors, and to raise the capital for the line by public subscription. The subscription may possibly be only partly successful. In that event the contractor must meet a large proportion of the expenditure from his private resources. Before he has succeeded in disposing of his proportion of the shares or bonds allotted to him, a European war may have broken out. In that case an indefinite period must elapse before the securities are realised.

"I have here sketched no imaginary picture. In the business with which my name is identified, the history of every transaction is a repetition of the story I have narrated. I am not exaggerating, when I say that an interval of ten years ordinarily elapsed between the opening of communications with the original promoters and the final payment for the construction of the works. You may easily imagine the hazards and uncertainties of an enterprise of this nature; and you will, I am confident, be of opinion that no true friend of the working classes would recommend them to risk their hard earnings in such adventures.

"The general business of the country, however, is of a more stable and methodical character. Here, then, the co-operative principle is more easily applied, and I therefore say, 'let the co-operators pursue their noble task, undaunted by difficulties, and inspired by a worthy ambition for independence.'"

XI.—*The Traffic of the Suez Canal.*

We receive the following table and notes from Mr. Henry Jeula:—

Table showing the Number of Vessels, Mercantile and Government, with Yachts, using the Suez Canal in 1872 *and* 1873, *with the Percentages for the various Nations on Total Number, and on the Tonnage of Mercantile Vessels (alone).*

Nation.	1872.			1873.		
	Number of Vessels.	Percentage on Total Number of Vessels.	Percentage on Total Mercantile Tonnage (only).	Number of Vessels.	Percentage on Total Number of Vessels.	Percentage on Total Mercantile Tonnage (only).
Austrian	58	5·37	4·33	70	5·97	4·64
British	763	70·57	75·11	812	69·22	72·32
Dutch	13	1·20	2·21	37	3·15	3·59
Egyptian	15	1·39	0·35	7	0·59	0·16
French	81	7·49	9·45	83	7·08	9·54
German........	14	1·30	0·84	28	2·39	1·81
Italian	66	6·10	4·07	58	4·94	3·36
Norwegian	6	0·56	0·44	5	0·43	0·43
Portuguese	10	0·93	0·31	2	0·17	*
Russian........	10	0·93	0·96	9	0·77	0·63
Spanish	7	0·65	0·57	17	1·45	1·57
Turkish........	33	3·05	1·18	26	2·22	0·86
Various........	5	0·46	0·18	19	1·62	1·09
Total....	1,081	100·00	100·00	1,173	100·00	100·00

Note.—Compiled from *Suez Canal Traffic* (various years). London: Cory Brothers and Co., 6, Crosby Square, E.C.

* These were *not* trading vessels.

The proportion of mercantile tonnage in 1872 was 91·32 per cent., and of Government and yacht tonnage 8·68 per cent.; while in 1873 it was 92·84 per cent., and 7·16 per cent., respectively.

The increase in the number of vessels over the preceding year was 42·05 per cent. in 1872, and 8·51 per cent. in 1873.

XII.—*The Mercantile Navies of the World.*

We receive the following table and notes from Mr. Henry Jeula:—

A Comparative Table compiled from the "Universal Mercantile List," issued by the Bureau Veritas, showing the Number, Tonnage, and Average Size of Sea-going Merchant Vessels of the Various Nations enumerated, with the Percentages upon Total Number and Tonnage, in the Years 1870 *and* 1873 *respectively.*

Nation.	Sailing Vessels.									
	1870.					1873.				
	Number of Vessels.	Percentage on Total.	Gross Tonnage.	Percentage on Total Tonnage.	Average Size in Tons.	Number of Vessels.	Percentage on Total.	Gross Tonnage.	Percentage on Total Tonnage.	Average Size in Tons.
American	7,025	11·80	2,400,607	14·96	341	6,786	12·06	2,132,838	15·03	314
Austrian	852	1·43	317,780	1·98	373	965	1·71	336,113	2·37	348
Belgian	72	0·12	26,148	0·16	363	46	0·08	14,704	0·10	320
British........	23,165	38·92	6,993,153	43·59	302	20,832	37·02	5,320,089	37·51	255
Danish........	1,415	2·38	183,510	1·14	130	1,226	2·18	170,834	1·20	139
Dutch	1,690	2·84	444,111	2·77	263	1,447	2·57	397,232	2·80	275
French	4,968	8·35	891,828	5·56	180	3,973	7·06	768,059	5·41	193
German	4,320	7·26	1,046,044	6·52	242	3,834	6·81	893,952	6·30	233
Greek	1,860	3·13	375,680	2·34	202	1,955	3·47	392,894	2·77	201
Italian........	3,395	5·70	907,570	5·66	267	4,220	7·50	1,126,032	7·94	267
Norwegian	3,652	6·14	989,882	6·17	271	3,930	6·98	1,137,177	8·02	289
Portuguese	368	0·62	87,018	0·54	236	415	0·74	93,815	0·66	226
Russian	1,306	2·20	346,176	2·16	265	1,327	2·36	347,744	2·45	262
Spanish	3,036	5·09	545,607	3·41	180	2,867	5·09	540,211	3·81	188
Swedish	1,930	3·24	340,188	2·12	176	1,827	3·25	327,409	2·31	179
Turkish	—	—	—	—	—	224	0·40	34,711	0·24	155
Various	464	0·78	147,196	0·92	317	407	0·72	152,022	1·08	374
Total	59,518	100·00	16,042,498	100·00	270	56,281	100·00	14,185,836	100·00	252

Nation.	Steamers.									
	1870.					1873.				
	Number of Vessels.	Percentage on Total.	Gross Tonnage.	Percentage on Total Tonnage.	Average Size in Tons.	Number of Vessels.	Percentage on Total.	Gross Tonnage.	Percentage on Total Tonnage.	Average Size in Tons.
American	597	14·47	513,792	18·39	861	403	7·83	483,040	11·16	1,199
Austrian	74	1·79	44,312	1·59	599	91	1·77	84,155	1·94	925
Belgian	14	0·34	10,442	0·37	746	42	0·82	30,444	0·70	725
British	2,426	58·71	1,651,767	59·13	681	3,061	59·46	2,624,431	60·64	857
Danish........	44	1·06	12,085	0·43	275	71	1·38	34,498	0·80	486
Dutch	82	1·98	39,405	1·42	481	95	1·85	72,753	1·68	766
French........	288	6·97	212,976	7·62	739	392	7·61	316,765	7·32	808
German	127	3·07	105,131	3·76	827	200	3·89	204,894	4·73	1,024
Greek	8	0·19	3,267	0·12	408	8	0·16	3,390	0·08	424
Italian	86	2·08	36,358	1·30	423	103	2·00	85,045	1·96	826
Norwegian	26	0·63	7,321	0·26	282	88	1·71	41,602	0·96	473
Portuguese	18	0·43	13,126	0·47	729	17	0·33	14,536	0·34	855
Russian	62	1·50	28,422	1·02	458	114	2·21	67,522	1·56	592
Spanish	148	3·58	72,845	2·61	492	202	3·92	138,675	3·20	686
Swedish	83	2·01	18,633	0·67	224	143	2·78	53,327	1·23	373
Turkish	—	—	—	—	—	9	0·17	3,049	0·07	339
Various	49	1·19	23,550	0·84	481	109	2·11	70,067	1·63	643
Total	4,132	100·00	2,793,532	100·00	676	5,148	100·00	4,328,193	100·00	841

Note.—In 1873 sailing vessels had *decreased*—as compared with 1870—in number by 5·44 per cent.; in tonnage by 11·57 per cent.; and in average size by 6·67 per cent.; while steamers had *increased* in number by 24·59 per cent.; in tonnage by 54·94 per cent.; and in average size by 24·41 per cent.

XIII.—*The New and Old German Coinages.*

The *Economist* of 13th June, 1874, contains the following translation of an article in the *Deutsches Handelsblatt* of Berlin, summarising various official reports presented to the German Reichstag respecting the present transformation of the German coinage:—

" A third report on the 'Execution of the Currency Laws' and a statement of the issues and withdrawals of gold, silver, and copper coinage which have taken place in the States of the German Empire to the end of the year 1873, were laid before the Reichstag during the late session. These reports afford a welcome opportunity for making certain observations as well as of completing the summarised statements made by us regarding the German currency, and connected matters.

" The present reform in our currency is founded on the idea that the entire system of German coinage is to be renewed, and that (after complete effect has been given to the new currency laws) not a single coin of any of the separate German States will remain in circulation, but the entire currency will in future consist solely of the new imperial coinage. It is in the nature of things that this object can only be accomplished gradually, and (as we shall show further on) in spite of the greatest activity on the part of the German mints, a number of years must elapse before a complete equivalent can be provided for all the coin to be withdrawn from circulation. Until this has been done some of the present coins will have to remain in use, but year by year their number will be reduced.

" The reports hitherto prepared by the imperial chancellery on the issues and withdrawals of coin of those German States, respecting which official records have existed since the introduction of the old monetary systems, dealt with the facts down to the year 1871. During the years 1872 and 1873 there were, however, several issues of 1 and 2-thaler pieces, and trifling quantities of smaller coins in commemoration of the war of 1870-71, as well as some isolated withdrawals on the part of the separate Governments. Reports on these latter issues and withdrawals are now furnished.

" The result of the same is as follows :—The entire issues of the several separate German States, after deducting the withdrawals, and reducing their value to thalers, amount to—

	Thalers.	£
Gold coins	176,981,437	26,547,216*
Silver coins of 1 and 2 thalers	432,817,596	64,922,640
" fractions of 1 thaler	62,990,223	9,448,534
" 2 florins and upwards	25,205,033	3,780,755
" in smaller fractions of florins	43,059,326	6,458,899
" Hansetowns	8,208,399	1,231,260
Small silver coins (scheidemünze)—		
Thaler currency ($2\frac{1}{2}$ silbergroschen pieces downwards)	5,822,016	2,373,302
Florin currency (6 kreuzer pieces, and smaller downwards)	10,543,993	1,581,599
Hansetowns	921,456	138,218
Copper coins—thaler currency	2,890,630	433,594
" florin "	759,492	113,924
" Hansetowns	3,361	504
Total	780,202,968	117,030,445

* Converting the thaler at $6\frac{2}{3}$ thalers per pound.

" The above statement at once gives rise to the question—what amount of the coins which according to the statistical report might still be in existence were actually still in circulation or in the possession of individuals or institutions at the close of the year 1873? The reply will essentially be to the following effect:—Of the older German gold coinages only an inconsiderable amount remained in existence at the close of last year, as, with the exception of a not very large sum of Prussian Fredericks d'Or, nearly all of them were melted down in the course of time. In consequence of the notice of the imperial chancellor of the 6th December, 1873, respecting the withdrawal of the old German gold coinages, in accordance with which these gold coins ceased to be legal tender from the 1st April of this year, and will only be exchanged by the Goverment treasuries to the end of June next, this balance may now be considered as withdrawn, and the possible circulation of former German coinages thereby reduced to 603,221,531 thalers (90,483,229*l.*), of which 30,940,952 thalers (4,641,143*l.*) are of the smaller silver and copper coins (scheidemünze). It is at present impossible to form any opinion as to the number of coins that have been lost in use, or the amount of silver currency melted down for export, or the use of individuals, and precise information on this point cannot be obtained until the reform of the currency has been completely effected.

" It is not probable that any of the German silver coins which still existed in December, 1871, and which were 'tariffed'* by the law of 5th December, 1871, have since been melted down for private use, as to do so would have caused a clear loss. If the reduction which has thus taken place down to the year 1871 is taken at one quarter of the original issues, the circulation at the end of December, 1871, may be estimated at about 450 million thalers (about 67,500,000*l.*), to which have to be added the Austrian thalers (Vereins thaler) and florins at that time circulating in Germany. The Austrian florins have, as is well known, since then disappeared from Germany, but Austrian thalers, to the amount of twenty or thirty millions (3,000,000*l.* to 4,500,000*l.*), may, perhaps, still be in Germany, and pending further legislation on the subject, they have the same value as thalers of German coinage.

" The report of 20th March of this year contains the following particulars respecting the withdrawals which have been effected on account of the Empire to 31st December, 1873.

" Up to that time there had been withdrawn, or paid in for withdrawal, of South German coinage about 16,000,000 florins in one or two florin pieces and 753,600 florins in crown thalers; further, of thaler currency, 6,166,800 thalers of the issues of 1750 to 1822, and 40,000 thalers of the issues of 1823 to 1856, or altogether a total of 15,780,286 thalers (2,267,043*l.*), to which must be added the commencement of the South German withdrawal of half-florins and kreutzers. Since the beginning of the present year this withdrawal is being carried on with greater activity. Much interest attaches to the particulars given in the report of the loss on the sale of silver bars produced from one million of South German florins. The loss (independently of the cost of melting, viz., 246 thalers, 16¼ gr.) did not exceed 15,653 thalers, 4 gr., 2 pf., or about 2⅔ (2·65) per cent. of the nominal value. The sale must, therefore, have been effected at a most favourable time. But the diminution in weight of the coins by use cannot have been considerable or the loss would have been much higher.

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* *i.e.*, which were adapted to the new monetary system by the tariff contained in the law of 5th December, 1871.

" The report, however, supplies further materials for forming an opinion as to the average loss of weight of the South German florin coinages. During the year 1873 the mints received 4,374,901 florins of South German coinage, containing 83,177·17 lbs. of pure silver. According to the South German standard (52½ florins = 1 lb. of pure silver) these coins originally contained 83,331·45 lbs. of pure silver, so that the loss by wear did not exceed 154·28 lbs., or rather less than one-fifth per cent.

" If, in the absence of more precise data, we accept the figures of the above-mentioned rather uncertain estimate, viz., that at the close of 1871 there remained in circulation a sum of about 450 million thalers (about 67,500,000*l.*) in old silver and copper coins, as the basis of our calculations, it will appear—according to the provisional estimate communicated to the Reichstag, in the sitting of 29th March, 1873, of the issues required to replace the above, viz., 400 million reichsmarks (20,000,000*l.*) of silver, and about 100 million reichsmarks (5,000,000*l.*) of nickel and copper coins, the metal for which will be produced entirely from the converted old coins—that on conclusion of the currency reform there will remain on hand a quantity of silver equal to about 300 million thalers (45,000,000*l.*) for disposal.

" The total coinage of imperial coins between December, 1871, and 25th April, 1874, amounts to :—

	Estimated Requirements.	Total Coinage.	
	Reichsmarks.	Reichsmarks.	£
Gold coins	1,200,000,000	1,022,169,700	51,108,485
Silver coins—			
5-mark pieces	50,000,000	—	—
2 ,,	—	—	—
1 ,,	150,000,000	14,525,170	726,258
50-pfennig pieces	100,000,000	—	—
20 ,,	100,000,000	4,737,140	236,857
Nickel coins—			
10-pfennig pieces	45,000,000	1,673,250	83,663
5 ,,	30,000,000	44,039·90	2,202
Copper coins—			
2 and 1-pfennig pieces	25,000,000	377,466·79	18,873
Total	1,700,000,000	1,043,526,768·69	52,176,383
Of which silver and smaller coins	500,000,000	21,357,068·69	1,067,583

" The report gives an account of amounts which the eight mints taking part in the issue of imperial silver, nickel, and copper currency are able to coin, and we are able therefrom to form an approximate estimate of the time which must elapse before the reform in the currency can be finally accomplished.

" The part taken by individual mints in this great work is not of much interest, and we therefore only give the total results compared with the before-mentioned estimate of the probable requirements.

Coins.	Estimated Requirement.	Amounts that can be Annually Issued by the Eight Mints.
Silver pieces—	Mln. of pieces.	Mln. of pieces.
5-mark	10	Not stated
2 „	—	—
1 „	150	35·11
50-pfennig	200	Not stated
20 „	500	57·16
Nickel pieces—		
10-pfennig	450	34·09
5 „	600	Not stated
Copper pieces—		
2-pfennig	750	34·47
1 „	1,000	33·87

"According to the official provisional estimate of the amount of imperial silver, nickel, and copper coins required, the following quantities of these coins are to be issued:—

	Mln. of Pieces.
Silver coins	860
Nickel and copper coins	2,800
Total	3,600

"This general estimate does not include the 2-mark pieces, the issue of which had not been provided for in the draft of law submitted to the Reichstag, and which was only subsequently determined upon; but this alteration will not materially affect the above proportions, as a smaller quantity of 1-mark pieces will probably be issued in consequence.

"The issue of 50-pfennig and 2-mark pieces is suspended for the present, but the issue of 5-mark and 5-pfennig pieces is to be commenced shortly.

"Taking one with the other, the eight German mints may be considered capable of annually striking $194\frac{7}{10}$ million pieces of coin, so that, roughly speaking, if the same rate of production is maintained—and independently of the issue of gold coinage—eighteen years must elapse before the whole of the new coins can be issued. The mint, which is at present being built at Hamburg, and which it is hoped will be in full activity at the beginning of next year, is estimated to produce 20 million pieces of different coins annually, of which 5 million pieces will be gold.

"Perhaps it may be possible to increase the producing capacity of the present mints in the course of some years, so that the total contemplated issue may take place in less than the estimated time, and the above-mentioned erection of a mint at Hamburg will contribute to this result; nevertheless, under any circumstances, at least ten or twelve years will be required.

"According to the rates laid down by the Bundesrath a sum of more than 10 million reichsmarks (500,000*l.*) will have to be paid to the mints for the cost of coinage. In spite of this large sum, the imperial treasury will nevertheless make a very considerable gain by the issue of silver coins, as the pound of pure silver, for which the treasury in exchanging the old coins pays 90 reichsmarks, is, in the new issues, coined into 100 reichsmarks, which on a total issue of 400 million reichsmarks (20,000,000*l.*) leaves a profit of 40 million reichsmarks (2,000,000*l.*).

"To this must be added the gain on the issue of nickel and copper coins, as well as the gain of 6 million reichsmarks realised already on the issue of imperial gold coins, and which has hitherto been paid into the imperial treasury.

"Taking all this into consideration, it would appear that the imperial treasury will (by means of the gains realised by carrying out the currency reform) be able, after paying the costs of coining, to cover the loss which may be expected on the sale of the surplus silver produced by melting down the old coins, and that the reform will at most impose only a slight financial burden on the Empire, if this sale of about 300 million thalers (45,000,000*l.*) is effected with a loss at the rate of four, or five, or perhaps even slightly more per cent.

"If the countries which signed the Latin Currency Convention, *i.e.*, France, Belgium, Switzerland, and Italy, maintain the double standard and Holland the silver standard, a greater fall in the price of silver need not be apprehended during the next few years."

XIV.—*Report of Deputation to the Right Hon. Mr. Sclater-Booth, on the Registration of Births and Deaths Bill.*

FROM the *Sessional Proceedings* of Social Science Association, 12th of June, 1874:—

"A joint deputation of this Association and the Statistical Society waited on the President of the Local Government Board on Friday last, to urge on him certain amendments to the bill then before Parliament to amend the law relating to the registration of births and deaths in England.

"The deputation was attended by Mr. G. W. Hastings, President of the Council of this Association; Dr. Guy, F.R.S., President of the Statistical Society; Dr. Farr, F.R.S.; Mr. George Goodwin, F.R.S.; Mr. Thomas Webster, Q.C., F.R.S.; Mr. Edward Backhouse, M.P.; Mr. Tayler, M.P.; C. W. Ryalls, LL.D., General Secretary of the Association; Mr. William Acton, Mr. Samuel Brown, Mr. Rowland Hamilton, Dr. Hardwicke, Mr. Ernest Hart, Mr. Hendriks, Mr. Lack, Mr. James Lewis, Mr. James Marshall, Mr. S. G. P. Neison, Mr. Phené, Dr. Sibson, Dr. A. P. Stewart, and Mr. Seymour Teulon. . . . .

"Mr. G. W. Hastings, in introducing the deputation, said it was a joint deputation of this Association and the Statistical Society, which he had been requested to introduce; and the subject was one which they had given much attention to. It was with regard to certain amendments which they recommended should be introduced in the 'Registration of Births and Deaths Bill' now before Parliament. He would ask Dr. Guy to be good enough to state in detail what were the views of the deputation to which they wished particularly to refer.

"Dr. Guy, F.R.S., President of the Statistical Society, said:—Mr. Hastings has sufficiently explained the object the deputation had in view in coming before the President of the Local Government Board. The Council of the Society which he (Dr. Guy) represented had met and fully considered the provisions of the Registration of Births and Deaths Bill, and had arrived at conclusions nearly identical with those adopted by the Social Science Association. These two societies are well represented in this room, and there are also present members of the Institute of Actuaries, who (although their Council have not been able to hold a formal meeting) are ready, if need be, to give in their adhesion to the views of the other two societies. The three societies have obviously a common interest in obtaining the most exact registration possible of births, deaths, and marriages. The advantages attending an accurate registration of births are obvious. The register, as a record of the date of the birth, affords the means of calculating the age at any subsequent period; and as it comprises the parentage also, the child's rights, as regards property, are guarded and defined. By the early registration of births, too, especially if the record could be made to embrace the still-born as well as those born alive, a check is put upon crime. Appreciating as we do the great advantages conferred by registration in times past, we wish to see those advantages continued, and even increased, as we think they may be. We believe that, in some respects, the Registration of Births and Deaths Bill shows a retrograde tendency. I allude especially to the time it would allow to elapse before information of a birth is given. We think the interval of six weeks much too long, and should greatly prefer the shorter interval of a month; indeed, there are some among us who would shorten the period still further. There are some obvious reasons why the period should be shortened as much as possible. The chance of the death or illness of an informant is considerably increased by lengthening the time; and the delay tends to create a feeling in the public mind that the matter is one of indifference, and that the Government itself views it in that light. These, we submit, are sufficient reasons for shortening, not lengthening, the period within which the act of registration may be performed. The views of the societies on these points are more fully set forth in their printed resolutions, which I now place, Sir, in your hands. There are several points relating to the registration of deaths (including still-births) upon which, had time permitted, I should have been tempted to offer some observations; but I may say, on behalf of the scientific society of which I am the direct representative on this occasion, that though our object is scientific truth, we value truth in proportion as it tends to promote the well-being of society. We have already had such experience of the great advantages conferred upon our science by registration, we draw upon it so constantly and so largely for needful data in all our investigations, that we earnestly desire its extension and improvement. I may mention, by way of illustration, the fruitful discovery that a most fatal malady, typhoid fever, which by no means stands alone, may be communicated from one person to another in drinking water. In the inquiries that lead to the discovery of facts of this order, we are to a curious extent dependent on accurate registration.

"Dr. A. P. Stewart said:—I think I ought to state that the Committee attaches very great importance to those parts of the bill which relate to the burial of those whose deaths are not duly certified, and of still-born children. We have long had our attention directed to the fact, of which you, Sir, are well aware, and Parliament also, that under the title of still-born many infants are buried which have been born alive. We entertain no doubt that the laxity which has hitherto prevailed in reference to such burials has had the effect of concealing a large amount of infanticide. We think that the provisions of the bill are not sufficiently stringent to prevent the continuance of this nefarious practice; and we are strongly of opinion that the burial of so-called still-born children, and of those whose death is uncertified by a medical attendant, or by a coroner's jury, should not in any case take place without a certificate from the medical officer of health or from the poor law medical officer, acting as his deputy, one or other of whom should view the body and inquire as to the cause of death. We think that in such cases some formal procedure should be required by the statute, and that some efficient obstacle should be placed in the way of a practice which too often serves as a convenient cloak of crime.

"Mr. Ernest Hart said that, since the Joint Committee of these Associations had been formed, the British Medical Association had had a deputation to Mr. Stanfield, and had forced this particular matter upon his attention, so that it was no new thing. Another point to which it was necessary the President's attention should be called was one in relation to which Dr. Lush had placed a notice of motion on the paper of the House of Commons. The Bill required every medical man to give a certificate, to be used for the purposes of the State, and at the offices of the State it might be copied, to be used for all sorts of private purposes—as evidence in a court of law, for instance—and every one who wanted a copy would have to pay a fee for it; but the writer of it, from whom it was to be obtained, was not provided for at all in regard to payment. The British Medical Association proposed, not that the State should pay for the certificate, but that the medical man should be entitled to recover for it as for an ordinary medical service rendered to his patient. This was the first time that it was proposed, in an Act of Parliament, to call upon the medical man to give a certificate, and therefore it was necessary that, at the same time, provision should be made for paying for the service. On the subject of 'still-births,' it was necessary that the President should have his attention called to the fact that a woman could go to an undertaker, say she had a 'still-born' child, and the child would be buried—this, too, without there being any power on the part of anyone to initiate an inquiry whether the child was still-born or not. A Committee of the House of Commons, last year, came to the opinion that there should be this power of inquiry, and that a certificate should be required for the protection of infant life; and that, in any future bill for the amendment of the registration of births and deaths, some clause should be inserted requiring the registration of still-births; and the Government, then, were prepared to introduce such a clause.

"Mr. Sclater-Booth said, with regard to the suggestion that where a certificate was given the medical man should have power to recover a fee, he thought that as a rule medical men charged for certificates in the attendance fees. There were two sides to the proposition to impose penalties; it was a very difficult matter to legislate upon. We have a clause in the Bill which I think will meet the case, but I will go over the whole of the clauses, and consider whether any such clause as the one proposed can be added or not. But as to the suggestions generally, I am not prepared at present to say how far the Government will go, but the views of the deputation shall have due weight at our hands.

"The deputation thanked the right hon. gentleman and withdrew."

The following was the statement submitted on behalf of the Council of the the Society:—

1. The period of forty-two days allowed for an informant to give notice of a birth to the registrar is unnecessarily long. In the Registration Bill submitted to Parliament by Her Majesty's Government in 1872, but withdrawn, it was proposed to make this limit *one month*, which is sufficient for all practical purposes.

2. Provision should be made for giving an increased value to the registration certificate of birth, by enacting that when the information of a birth is accompanied with the production of a certificate of attendance at birth supplied by a qualified medical practitioner, or by a recognised midwife, the registrar should be

instructed to add the words "Certified by ———," after the name and address of the informant in the eighth column of the register.

3. It is essential for the purposes of the mortality returns that every death should be registered as promptly as possible, and therefore the proposal to allow the registrars a maximum limit of *one month* within which to complete or require the completion of a death registration, will most seriously affect the sanitary statistics of the country, to which the Public Health Act of 1872 gave increased importance.

4. No burial should be permitted without the production to the officiating minister at the interment, of a registrar's certificate that the death has been duly registered, or that notice of the death has been received by the registrar from the proper informant; in inquest cases a coroner's order for burial will suffice.

5. Clause 18 interposes no proper safeguard against the burial of live-born children as still-born. Under the clause (as under the existing law) still-born children may be buried without the cognisance of the registrar. In the Bill of 1872 (clause 19) it was proposed to enact that no still-born child should be buried without a registrar's order for burial, to be issued under certain conditions. This clause is much to be preferred to the clause 18 in the present Bill. There should be, however, a provision that the registrar shall enter in a separate register book the particulars of every still-birth in respect of which he issues a burial order.

6. As it is proposed to render the certification of causes of death obligatory upon the medical profession, it should be enacted in clause 19, that medical men should be legally entitled to charge the families of their deceased patients for such certificates as for other medical services rendered. At present it is doubtful if such legal right of charge exists.

7. As regards deaths where there is no medical attendant to certify the cause and no inquest is held, the medical officer of health should be required either by himself, or by the poor law medical officer as his deputy, to visit the body, and either to certify the cause of death according to the appearances of the body and the evidence of the persons about the deceased, or to call for a coroner's inquest. The discretion given by clause 20 to the registrar in respect of medically uncertified causes of death is objectionable. Clause 18 of the Bill of 1872, though defective as not requiring medical evidence, was more satisfactory than the present clause, for it at least required the joint statement of two informants where no medical evidence was forthcoming.

8. The Bill contains provisions for the registration of all births and deaths occurring in British ships *at sea*, but it does not provide for the registration of the deaths in the army and navy *abroad*. This is a defect which should be remedied by a clause requiring the War Office and the Admiralty to supply the Registrar-General periodically with an authentic list of all the deaths in the army and navy *abroad*, comprising the several particulars required in the case of Englishmen dying at home.

9. In the Registration Bills of 1872 and 1873 the omission of informants to give notice of births or deaths to the registrars was specifically made punishable by a fine, and this is essential to the efficient working of a compulsory registration law. In the present Bill no penalty is prescribed for the omission of the notice on the part of the informant. Furthermore, the maximum penalty of 40*s*. for refusing to give information when applied for by the registrar is too small.

REGISTRATION OF THE UNITED KINGDOM.

No. I.—ENGLAND AND WALES.

MARRIAGES—Quarter ended December, 1873.
BIRTHS and DEATHS—Quarter ended March, 1874.

A.—*Serial Table of* Marriages, Births, *and* Deaths, *returned in the Years* 1874-68, *and in the* Quarters *of those Years.*

Calendar Years, 1874-68:—*Numbers.*

Years.........	'74.	'73.	'72.	'71.	'70.	'69.	'68.
Marriages No.	—	205,460	201,267	190,112	181,655	176,970	176,962
Births........ ,,	—	831,809	825,907	797,428	792,787	773,381	786,858
Deaths .... ,,	—	494,003	492,265	514,879	515,329	494,828	480,622

Quarters *of each Calendar Year*, 1874-68.

(I.) Marriages:—*Numbers.*

Qrs. ended last day of	'74.	'73.	'72.	'71.	'70.	'69.	'68.
March........ No.	—	41,209	40,539	36,305	36,455	37,752	36,696
June .... ,,	—	53,332	50,380	48,831	46,720	43,202	45,364
September ,,	—	49,658	49,818	46,536	43,900	43,978	43,509
December ,,	—	61,261	60,530	58,440	54,580	52,038	51,393

(II.) Births:—*Numbers.*

Qrs. ended last day of	'74.	'73.	'72.	'71.	'70.	'69.	'68.
March........ No.	214,437	216,367	208,752	209,523	206,366	203,775	198,584
June .... ,,	—	206,618	208,790	201,165	203,615	188,618	202,839
September ,,	—	203,609	201,746	193,271	192,521	190,394	192,583
December ,,	—	205,215	206,619	193,469	190,285	190,594	192,852

(III.) Deaths:—*Numbers.*

Qrs. ended last day of	'74.	'73.	'72.	'71.	'70.	'69.	'68.
March........ No.	136,528	132,626	134,952	138,393	143,773	133,096	119,676
June .... ,,	—	118,751	120,835	120,793	121,128	118,947	110,010
September ,,	—	114,343	118,927	121,332	124,297	114,644	130,482
December ,,	—	128,283	117,551	134,361	126,131	128,141	120,454

Annual Rates of MARRIAGES, BIRTHS, *and* DEATHS, *per* 1,000 PERSONS LIVING *in the Years* 1874-68, *and the* QUARTERS *of those Years.*

Calendar YEARS, 1874-68:—*General Ratios.*

YEARS	'74.	Mean '64–73.	'73.	'72.	'71.	'70.	'69.	'68.
Estmtd. Popln. of England *in thousands* in middle of each Year....	23,649,	—	23,356,	23,068,	22,783,	22,501,	22,223,	21,949,
Persons Married	—	16·9	17·6	17·5	16·7	16·1	15·9	16·1
Births	—	35·4	35·6	35·8	35·0	35·2	34·8	35·8
Deaths................	—	22·4	21·2	21·3	22·6	22·9	22·3	21·9

QUARTERS *of each Calendar Year*, 1874-68.

(I.) PERSONS MARRIED:—*Ratio per* 1,000.

Qrs. ended last day of	'74.	Mean '64–73.	'73.	'72.	'71.	'70.	'69.	'68.
March	—	13·8	14·3	14·1	12·9	13·2	13·8	13·5
June....................	—	17·1	18·3	17·5	17·2	16·7	15·6	16·6
September	—	16·4	16·9	17·1	16·2	15·5	15·7	15·8
December	—	19·9	20·8	20·8	20·4	19·2	18·6	18·6

(II.) BIRTHS:—*Ratio per* 1,000.

Qrs. ended last day of	'74.	Mean '64–73.	'73.	'72.	'71.	'70.	'69.	'68.
March	36·8	37·1	37·6	36·3	37·3	37·3	37·3	36·4
June....................	—	36·1	35·5	36·3	35·5	36·4	34·1	37·2
September	—	34·3	34·6	34·7	33·7	34·0	34·1	34·9
December	—	34·2	34·9	35·5	33·7	33·6	34·1	35·0

(III.) DEATHS:—*Ratio per* 1,000.

Qrs. ended last day of	'74.	Mean '64–73.	'73.	'72.	'71.	'70.	'69.	'68.
March	23·4	24·9	23·0	23·5	24·7	26·0	24·4	21·9
June....................	—	21·6	20·4	21·0	21·3	21·6	21·5	20·2
September	—	21·2	19·4	20·5	21·1	22·0	20·5	23·7
December	—	22·2	21·8	20·2	23·4	22·3	22·9	21·8

B.—*Comparative Table of* CONSOLS, PROVISIONS, PAUPERISM, *and* TEMPERATURE *in each of the Nine* QUARTERS *ended March*, 1874.

1	2	3	4	5	6	7	8	9	10
Quarters ending	Average Price of Consols (for Money).	Average Rate of Bank of England Discount.	Average Price of Wheat per Quarter in England and Wales.	Average Prices of Meat per lb. at the Metropolitan Meat Market (by the Carcase), with the *Mean* Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	Pauperism. Quarterly Average of the Number of Paupers relieved on the *last day* of each week.		Mean Temperature.
				Beef.	Mutton.		In-door.	Out-door.	
1872	£		*s.* *d.*	*d.* *d.* *d.*	*d.* *d.* *d.*	*s.* *s.* *s.*			°
Mar. 31	$92\frac{4}{8}$	3·0	55 4	$5—7\frac{1}{4}$ $6\frac{1}{8}$	$5\frac{3}{4}—8\frac{1}{2}$ $7\frac{1}{8}$	80—120 100	149,604	777,575	43·6
June 30	$92\frac{7}{8}$	4·0	56 8	$5\frac{1}{4}—7\frac{1}{2}$ $6\frac{3}{8}$	$6—8\frac{3}{4}$ $7\frac{3}{8}$	124—150 137	134,422	724,792	52·8
Sept. 30	$92\frac{4}{8}$	3·5	58 11	$5\frac{1}{4}—8$ $6\frac{5}{8}$	$6\frac{1}{4}—9\frac{1}{4}$ $7\frac{3}{4}$	105—133 119	126,422	681,867	61·1
Dec. 31	$92\frac{2}{8}$	5·9	57 3	$5\frac{1}{2}—8$ $6\frac{3}{4}$	$6—8\frac{1}{2}$ $7\frac{1}{4}$	153—187 170	138,662	675,644	45·3
1873									
Mar. 31	$92\frac{3}{8}$	3·9	55 10	$5\frac{1}{2}—8$ $6\frac{3}{4}$	$6\frac{1}{4}—9$ $7\frac{5}{8}$	179—235 207	150,381	703,377	39·4
June 30	$93\frac{3}{8}$	5·2	56 5	$6—8\frac{3}{4}$ $7\frac{3}{8}$	$6\frac{3}{4}—9\frac{1}{2}$ $8\frac{1}{8}$	183—242 212	135,638	666,261	50·2
Sept. 30	$92\frac{4}{8}$	3·8	61 4	$5\frac{3}{4}—8\frac{3}{4}$ $7\frac{1}{4}$	$6\frac{1}{2}—9\frac{1}{4}$ $7\frac{7}{8}$	95—120 107	127,672	632,416	60·3
Dec. 31	$92\frac{4}{8}$	6·3	61 1	$5—8\frac{1}{2}$ $6\frac{3}{4}$	$5\frac{3}{4}—8\frac{1}{2}$ $7\frac{1}{8}$	96—117 107	137,409	625,316	44·2
1874									
Mar. 31	92	3·6	62 2	$5\frac{1}{4}—8\frac{1}{4}$ $6\frac{3}{4}$	$5\frac{1}{2}—8\frac{1}{4}$ $6\frac{7}{8}$	112—127 119	146,087	641,904	—

C.—*General Average Death-Rate Table:—Annual Rate of Mortality to* 1,000 *of the Population in the Eleven Divisions of England.*

Divisions.	Average Annual Rate of Mortality to 1,000 Living in						
	Ten Years, 1861-70.	Year 1873.	1873. Quarters ending				1874.
			March.	June.	Sept.	Dec.	March.
England and Wales	22·4	21·2	23·0	20·4	19·4	21·8	23·4
I. London	24·3	22·5	22·7	20·0	21·8	25·3	23·7
II. South-Eastern counties	19·1	16·7	18·8	16·5	15·3	16·3	19·5
III. South Midland „	20·2	18·1	20·8	17·5	16·5	17·8	20·1
IV. Eastern counties	20·1	18·6	20·9	18·6	17·3	17·7	20·4
V. South-Western counties	19·9	18·1	21·2	18·2	15·0	17·9	21·4
VI. West Midland „	21·8	20·8	23·6	19·8	18·3	21·5	23·3
VII. North Midland „	20·8	20·2	22·9	20·1	18·5	19·5	21·6
VIII. North-Western „	26·3	24·6	26·9	24·1	23·1	24·4	27·4
IX. Yorkshire	24·0	22·7	23·8	22·1	21·8	23·3	23·4
X. Northern counties	22·7	23·8	23·8	22·9	23·5	25·1	26·3
XI. Monmouthshire and Wales	21·6	23·8	23·8	21·7	17·4	21·7	26·0

D.—*Special Average Death-Rate Table:*—ANNUAL RATE *of* MORTALITY *per* 1,000 *in* TOWN *and* COUNTRY DISTRICTS *of* ENGLAND *in each Quarter of the Years* 1874-72.

	Area in Statute Acres.	Population Enumerated.	Quarters ending	Annual Rate of Mortality per 1,000 in each Quarter of the Years			
		1871.		1874.	Mean '64-73.	1873.	1872.
In 130 Districts, and 59 Sub-districts, comprising the *Chief Towns*........	3,183,965	12,892,982	March ..	25·2	27·0	24·5	25·4
			June	—	23·1	21·6	22·6
			Sept.	—	23·9	22·0	23·1
			Dec.	—	24·8	24·7	22·2
			Year	—	24·7	23·2	23·3
			Year	—	19·5	18·5	18·6
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly *Small Towns* and *Country Parishes*	34,135,256	9,819,284	March ..	20·9	22·4	21·1	20·9
			June	—	19·5	18·8	18·8
			Sept.	—	17·4	16·0	17·0
			Dec.	—	18·6	17·9	17·6

Note.—The three months January, February, March, contain 90, in leap year 91 days; the three months April, May, June, 91 days; each of the last two quarters of the year, 92 days. For this inequality a correction has been made in these calculations, also for the difference between 365 and 365·25 days, and 366 and 365·25 days in leap year.

E.—*Special Town Table:*—POPULATION; BIRTHS, DEATHS; MEAN TEMPERATURE *and* RAINFALL *in the First Quarter of* 1874, *in* TWENTY-ONE *Large Towns.*

Cities, &c.	Estimated Population in the Middle of the Year 1874.	Births in 13 Weeks ending 4th April, 1874.	Deaths in 13 Weeks ending 4th April, 1874.	Annual Rate to 1,000 Living during the 13 Weeks ending 4th April.		Mean Temperature in 13 Weeks ending 4th April, 1874.	Rainfall in Inches in 13 Weeks ending 4th April, 1874.
				Births.	Deaths.		
Total of 21 towns in U. K.	7,618,655	72,040	48,623	38·0	25·6	41·4	5·55
London	3,400,701	31,168	20,079	36·8	23·7	41·6	2·80
Portsmouth........................	120,436	980	722	32·7	24·1	—	4·01
Norwich	82,257	703	492	34·3	24·0	39·7	2·71
Bristol..............................	192,889	1,859	1,194	38·7	24·8	—	—
Wolverhampton................	70,896	703	387	39·8	21·9	41·0	6·20
Birmingham	360,892	3,814	2,545	42·4	28·3	41·7	6·29
Leicester..........................	106,202	1,167	572	44·1	21·6	41·2	4·83
Nottingham	90,894	837	576	37·0	25·4	40·5	4·29
Liverpool..........................	510,640	4,996	3,606	39·3	28·3	42·2	4·67
Manchester	355,339	3,475	2,662	39·3	30·1	41·4	7·98
Salford..............................	133,068	1,535	984	46·3	29·7	41·2	7·02
Oldham	86,281	906	669	42·1	31·1	—	8·50
Bradford..........................	163,056	1,607	964	39·6	23·7	41·1	5·75
Leeds	278,798	2,879	2,049	41·4	29·5	41·7	4·78
Sheffield	261,029	2,740	1,608	42·1	24·7	41·5	4·95
Hull..................................	130,996	1,396	739	42·8	22·6	40·0	3·38
Sunderland	104,378	1,090	600	41·9	23·1	—	—
Newcastle-on-Tyne	135,437	1,425	982	42·2	29·1	—	—
Edinburgh	211,691	1,669	1,342	31·6	25·4	—	—
Glasgow	508,109	4,873	3,739	38·5	29·5	41·7	9·14
Dublin..............................	314,666	2,218	2,112	28·3	26·9	42·6	4·65

F.—*Divisional Table:*—Marriages *Registered in Quarters ended* 31*st December*, 1873-71; *and* Births *and* Deaths *in Quarters ended* 31*st March*, 1874-72.

1 DIVISIONS. (England and Wales.)	2 Area* in Statute Acres.	3 Population, 1871. (*Persons.*)	4 Marriages in Quarters ended 31st December. 1873.	5 1872.	6 1871.
		No.	No.	No.	No.
Engld. & Wales....*Totals*	37,319,221	22,712,266	61,261	60,277	58,498
I. London	75,362	3,254,260	9,195	9,184	9,226
II. South-Eastern	3,994,431	2,167,726	5,164	4,868	4,798
III. South Midland	3,201,325	1,442,654	3,365	3,616	3,408
IV. Eastern	3,211,441	1,218,728	3,363	3,227	3,246
V. South-Western	4,981,170	1,880,777	3,802	3,762	3,864
VI. West Midland	3,945,460	2,720,669	7,593	7,392	7,367
VII. North Midland	3,535,445	1,406,935	4,023	3,897	3,752
VIII. North-Western	1,998,914	3,389,044	9,227	9,324	8,980
IX. Yorkshire	3,702,384	2,395,569	7,274	7,042	6,705
X. Northern	3,547,947	1,414,234	4,154	4,115	3,707
XI. Monmthsh. & Wales	5,125,342	1,421,670	4,101	3,852	3,445

7 DIVISIONS. (England and Wales.)	8 Births in Quarters ended 31st March. 1874.	9 1873.	10 1872.	11 Deaths in Quarters ended 31st March. 1874.	12 1873.	13 1872.
	No.	No.	No.	No.	No.	No.
Engld. & Wales....*Totals*	214,437	216,367	208,737	136,528	132,626	134,992
I. London	31,168	32,094	30,650	20,079	18,970	19,801
II. South-Eastern	18,078	18,376	18,179	11,008	10,436	10,608
III. South Midland	12,433	13,129	12,386	7,391	7,579	7,592
IV. Eastern	10,117	10,435	10,206	6,254	6,360	6,457
V. South-Western	14,449	15,111	15,600	10,018	9,880	10,073
VI. West Midland	26,702	26,838	26,041	16,117	16,215	15,759
VII. North Midland	13,369	12,755	12,727	7,729	8,107	7,763
VIII. North-Western	34,861	35,227	33,871	24,028	23,247	22,920
IX. Yorkshire	24,185	23,822	22,464	14,656	14,624	15,563
X. Northern	15,870	15,747	14,009	9,804	8,684	9,891
XI. Monmthsh. & Wales	13,205	12,833	12,604	9,384	8,524	8,565

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* These are revised figures, and will be found to differ somewhat from those hitherto published.

G.—*General Meteorological Table, Quarter ended March*, 1874.

[Abstracted from the particulars supplied to the Registrar-General by James Glaisher, Esq., F.R.S., &c.]

1874. Months.	Temperature of Air. Mean.	Air. Diff. from Average of 103 Years.	Air. Diff. from Average of 33 Years.	Evaporation. Mean.	Evaporation. Diff. from Average of 33 Years.	Dew Point. Mean.	Dew Point. Diff. from Average of 33 Years.	Air—Daily Range. Mean.	Air—Daily Range. Diff. from Average of 33 Years.	Water of the Thames	Elastic Force of Vapour. Mean.	Elastic Force of Vapour. Diff. from Average of 33 Years.	Weight of Vapour in a Cubic Foot of Air. Mean.	Weight of Vapour. Diff. from Average of 33 Years.
	°	°	°	°	°	°	°	°	°	°	In.	In.	Gr.	Gr.
Jan. ...	41·7	+5·4	+3·4	40·0	+3·1	37·9	+2·9	11·1	+1·5	41·0	·228	+·025	2·6	+0·2
Feb. ...	38·7	+0·1	−0·6	36·8	−0·8	34·2	−0·9	11·5	+0·2	40·3	·197	−·009	2·3	+0·1
Mar. ...	43·7	+2·7	+2·1	41·2	+1·9	38·2	+1·8	16·2	+1·5	43·8	·231	+·015	2·7	+0·2
Mean ...	41·4	+2·7	+1·6	39·3	+1·4	36·8	+1·3	12·9	+1·1	41·7	·219	+·010	2·5	+0·2

1874. Months.	Degree of Humidity. Mean.	Degree of Humidity. Diff. from Average of 33 Years.	Reading of Barometer. Mean.	Reading of Barometer. Diff. from Average of 33 Years.	Weight of a Cubic Foot of Air. Mean.	Weight of a Cubic Foot of Air. Diff. from Average of 33 Years.	Rain. Amnt.	Rain. Diff. from Average of 59 Years.	Daily Horizontal Movement of the Air.	Reading of Thermometer on Grass. Number of Nights it was At or below 30°.	Number of Nights it was Between 30° and 40°.	Number of Nights it was Above 40°.	Lowest Reading at Night.	Highest Reading at Night.
			In.	In.	Gr.	Gr.	In.	In.	Miles.				°	°
Jan. ...	87	− 1	29·891	+·156	552	− 1	1·0	−0·9	334	16	12	3	19·0	42·0
Feb. ...	85	0	29·852	+·056	555	+ 2	0·9	−0·6	261	18	8	2	14·3	44·7
Mar. ...	81	− 1	30·013	+·271	552	+ 2	0·5	−1·1	339	14	12	5	15·0	46·8
Mean ...	84	− 1	29·919	+·161	553	+ 1	Sum 2·4	Sum −2·6	Mean 311	Sum 48	Sum 32	Sum 10	Lowest 14·3	Highst 46·8

Note.—In reading this table it will be borne in mind that the sign (−) minus signifies below the average, and that the sign (+) plus signifies above the average.

The mean temperature of January was 41°·7, being 5°·4 higher than the average of 103 years, and 3°·4 higher than the average of the preceding 33 years. It was 0°·4 lower than in 1873, and 0°·4 higher than in 1871.

The mean temperature of February was 38°·7, being 0°·6 lower than the average of the preceding thirty-three Februaries, 4°·4, warmer than in 1873, and 6°·1 colder than in 1872.

The mean temperature of March was 43°·7, being 2¾° higher than the average of 103 years, and 2°·1 higher than that of the preceding 33 years, higher than in 1873 by 1°·8, but lower than in 1872 by 0°·9.

The mean high day temperatures were respectively 4°·1 and 2°·9 higher than their averages in January and March, but 0°·5 lower in February.

The mean low night temperatures were higher than their respective averages in January and March by 2°·6 and 1°·4, but lower in February by 0°·7.

Thus the days and nights were warm in January and March, but somewhat cold in February.

H.—*Special Meteorological Table, Quarter ended* 31*st March*, 1874.

1	2	3	4	5	6	7	8	9
Names of Stations.	Mean Pressure of Dry Air reduced to the Level of the Sea.	Highest Reading of the Thermometer.	Lowest Reading of the Thermometer.	Range of Temperature in the Quarter.	Mean Monthly Range of Temperature.	Mean Daily Range of Temperature.	*Mean Temperature of the Air.*	Mean Degree of Humidity.
	in.	°	°	°	°	°	°	
Guernsey................	29·878	60·0	27·0	33·0	24·7	8·7	45·1	87
Osborne	29·866	62·3	23·7	38·6	31·0	12·8	42·8	91
Barnstaple	29·830	60·0	27·0	33·0	27·3	10·1	45·3	87
Royal Observatory	29·878	65·4	21·0	44·4	34·9	13·0	41·4	84
Royston	29·885	66·7	14·6	52·1	39·1	14·4	40·9	85
Norwich	29·820	64·5	19·0	45·5	35·2	13·3	39·8	94
Llandudno	29·771	59·4	26·2	33·2	27·2	11·3	44·4	83
Derby	29·816	67·0	21·0	46·0	36·0	12·3	41·2	83
Stonyhurst	29·806	56·7	11·1	45·6	33·5	11·2	40·7	88
Leeds	—	—	—	—	—	—	—	—
North Shields........	—	58·5	20·6	37·9	29·7	10·6	40·6	84

10	11	12	13	14	15	16	17	18
Names of Stations.	Wind.					Mean Amount of Cloud.	Rain.	
	Mean estimated Strength.	Relative Proportion of					Number of Days on which it fell.	Amount Collected.
		N.	E.	S.	W.			
								in.
Guernsey................	1·4	6	5	9	10	5·2	46	5·21
Osborne	0·2	5	4	8	13	6·8	45	4·46
Barnstaple	1·3	5	4	10	12	5·5	55	8·94
Royal Observatory	0·6	5	3	9	13	6·7	32	2·39
Royston	—	5	3	9	13	6·2	45	3·48
Norwich	—	3	3	10	13	—	30	2·63
Llandudno	0·8	3	1	5	21	6·1	43	6·47
Derby	—	5	2	7	16	—	42	4·62
Stonyhurst	—	4	3	10	14	7·2	73	13·50
Leeds	—	—	—	—	—	—	—	—
North Shields........	1·7	8	2	5	15	5·3	51	3·50

No. II.—SCOTLAND.

MARRIAGES, BIRTHS, AND DEATHS IN THE QUARTER ENDED 31ST MARCH, 1874.

I.—*Serial Table:—Number of Births, Deaths, and Marriages in Scotland, and their Proportion to the Population estimated to the Middle of each Year, also the Number during each Quarter of the Years* 1874-70 *inclusive.*

	1874.		1873.		1872.		1871.		1870.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
1st Quarter—										
Births	29,837	3·45	30,210	3·52	29,506	3·47	28,902	3·43	28,665	3·44
Deaths	20,775	2·40	21,443	2·50	21,245	2·50	19,756	2·34	22,198	2·66
Marriages ..	6,777	0·78	6,618	0·77	5,820	0·68	5,415	0·64	5,647	0·67
Mean Temperature	40°·9		38°·1		40°·7		39°·1		36°·9	
2nd Quarter—										
Births	—	—	31,283	3·64	30,726	3·61	30,583	3·63	30,636	3·67
Deaths	—	—	19,931	2·32	19,045	2·24	18,715	2·22	18,027	2·15
Marriages ..	—	—	6,690	0·78	6,398	0·75	5,946	0·70	5,770	0·69
Mean Temperature	—		49°·2		49°·2		48°·7		51°·0	
3rd Quarter—										
Births	—	—	28,975	3·38	29,181	3·43	28,689	3·40	28,263	3·39
Deaths	—	—	17,072	1·99	16,692	1·96	16,835	2·00	16,573	2·03
Marriages ..	—	—	5,816	0·68	5,891	0·69	5,424	0·64	5,318	0·63
Mean Temperature	—		55°·4		55°·8		56°·3		57°·1	
4th Quarter—										
Births	—	—	29,270	3·41	29,460	3·46	27,953	3·32	27,826	3·26
Deaths	—	—	18,411	2·15	18,759	2·20	19,338	2·29	17,367	2·08
Marriages ..	—	—	7,606	0·88	7,471	0·88	7,181	0·85	7,119	0·85
Mean Temperature	—		42°·7		41°·8		41°·3		39°·6	
Year—										
Population.	—		3,430,923		3,399,226		3,367,922		3,336,707	
Births	—	—	119,738	3·49	118,873	3·49	116,127	3·45	115,390	3·46
Deaths	—	—	76,857	2·24	75,741	2·22	74,644	2·22	74,165	2·22
Marriages ..	—	—	26,730	0·76	25,580	0·75	23,966	0·71	23,854	0·71

II.—*Special Average Table:—Number of Births, Deaths, and Marriages in Scotland and in the Town and Country Districts during the Quarter ending* 31*st March,* 1874, *and their Proportion to the Population; also the Number of Illegitimate Births, and their Proportion to the Total Births.*

Registration Groups of Districts.	Population.		Total Births.			Illegitimate Births.		
	Census, 1871.	Estimated to Middle of 1874.	Number.	Per Cent.	Ratio. One in every	Number.	Per Cent.	Ratio. One in every
SCOTLAND	3,360,018	3,462,916	29,837	3·45	29	2,623	8·8	11·3
Principal towns	1,068,556	1,136,154	10,270	3·62	27	909	8·8	11·3
Large „	332,180	354,335	3,688	4·16	24	231	6·2	16·0
Small „	778,164	796,900	7,136	3·59	28	578	8·1	12·3
Mainland rural	1,049,114	1,045,027	7,950	2·28	44	841	10·6	9·4
Insular „	132,004	130,500	793	2·43	41	64	8·1	12·3

Registration Groups of Districts.	Population.		Deaths.			Marriages.		
	Census, 1871.	Estimated to Middle of 1874.	Number.	Per Cent.	Ratio. One in every	Number.	Per Cent.	Ratio. One in every
SCOTLAND	3,360,018	3,462,916	20,775	2·40	41	6,777	0·78	128
Principal towns	1,068,556	1,136,154	7,860	2·84	36	2,741	0·96	103
Large „	332,180	354,335	2,619	2·96	34	736	0·83	120
Small „	778,164	796,900	4,689	2·35	42	1,586	0·80	126
Mainland rural	1,049,114	1,045,027	5,081	1·94	52	1,446	0·55	180
Insular „	132,004	130,500	526	1·61	62	268	0·82	122

III.—*Bastardy Table:—Proportion of Illegitimate in every Hundred Births in the Divisions and Counties of Scotland, during the Quarter ending* 31*st March,* 1874.

Divisions.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.
SCOTLAND	8·8						
Northern	10·2	Shetland	10·4	Forfar	11·0	Lanark........	7·3
		Orkney	6·7	Perth	8·9	Linlithgow .	8·3
North-Western	6·2	Caithness	12·4	Fife	6·0	Edinburgh .	7·3
North-Eastern	16·3	Sutherland....	10·5	Kinross	10·0	Haddington	9·6
		Ross and Cromarty	2·3	Clackmannan	6·2	Berwick	8·9
East Midland ..	8·9					Peebles........	7·6
West Midland.	8·2	Inverness	9·1	Stirling	9·0	Selkirk	6·6
		Nairn	11·1	Dumbarton ..	6·2	Roxburgh ..	9·1
South-Western	7·0	Elgin	20·4	Argyll	8·3	Dumfries	17·3
South-Eastern.	7·6	Banff	20·5	Bute	12·2	Kirkcudbright ..	14·0
		Aberdeen	14·8	Renfrew........	5·2		
Southern	13·6	Kincardine....	16·7	Ayr................	7·5	Wigtown	12·3

IV.—*Divisional Table:*—MARRIAGES, BIRTHS, *and* DEATHS *Registered in the Quarter ended* 31*st March*, 1874.

1 DIVISIONS. (Scotland)	2 AREA in Statute Acres.	3 POPULATION, 1871. (*Persons.*)	4 Marriages.	5 Births.	6 Deaths.
		No.	No.	No.	No.
SCOTLAND .... *Totals*	19,639,377	3,360,018	7,606	29,837	20,775
I. Northern	2,261,622	127,191	211	674	451
II. North-Western........	4,739,876	166,351	278	1,100	738
III. North-Eastern	2,429,594	393,199	477	3,016	2,022
IV. East Midland	2,790,492	559,676	1,073	4,420	3,242
V. West Midland	2,693,176	251,088	411	2,065	1,514
VI. South-Western........	1,462,397	1,183,218	3,077	13,043	8,922
VII. South-Eastern	1,192,524	475,523	971	4,014	2,722
VIII. Southern	2,069,696	203,772	279	1,505	1,164

No. III.—GREAT BRITAIN AND IRELAND.

SUMMARY *of* MARRIAGES, *in the Quarter ended* 31*st December*, 1873; *and* BIRTHS *and* DEATHS, *in the Quarter ended* 31*st March*, 1874.

COUNTRIES.	[000's omitted.]		Marriages.	Per 1,000 of Population.	Births.	Per 1,000 of Population.	Deaths.	Per 1,000 of Population.
	Area in Statute Acres.	Population, 1871. (*Persons.*)						
		No.	No.	Ratio.	No.	Ratio.	No.	Ratio.
England and Wales	37,319,	22,712,	61,261	2·7	214,437	9·4	136,528	6·0
Scotland	19,639,	3,360,	7,606	2·2	29,837	8·9	20,775	6·2
Ireland	20,323,	5,412,	5,556	1·0	36,634	6·8	25,883	4·8
GREAT BRITAIN AND IRELAND	77,281,	31,484,	74,423	2·0	280,908	8·4	183,186	5·7

Note.—The numbers against Ireland represent the marriages, births, and deaths that the local registrars have *succeeded* in recording; but how far the registration approximates to absolute completeness, does not at present appear to be known. It will be seen that the Irish ratios of births, deaths, and marriages are much under those of England and Scotland.—ED. *S. J.*

Trade of United Kingdom, 1874-73-72.—*Distribution of* **Exports*** *from United Kingdom, according to the Declared Real Value of the Exports; and the Declared Real Value (Ex-duty) of* **Imports** *at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (*excluding Gold and Silver*), Imported from, and Exported to, the following Foreign Countries, &c. [000's omitted.]	First Three Months.					
	1874.		1873.		1872.	
	Imports from	*Exports to*	Imports from	*Exports to*	Imports from	*Exports to*
I.—FOREIGN COUNTRIES:	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	5,246,	1,981,	5,408,	1,589,	6,375,	1,099,
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	12,020,	11,006,	11,308,	12,928,	10,392,	12,528,
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	15,007,	6,548,	15,200,	6,400,	13,660,	6,129,
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	1,389,	2,538,	1,705,	2,846,	1,828,	2,303,
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	5,385,	2,918,	6,711,	3,916,	7,293,	3,323,
Northern Africa; viz., Tripoli, Tunis, Algeria and Morocco	562,	142,	284,	108,	261,	93,
Western Africa	347,	192,	435,	262,	376,	234,
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Mooria Islands	94,	112,	80,	83,	14,	67,
Indian Seas, Siam, Sumatra, Java, Philippines; other Islands	954,	429,	506,	285,	638,	274,
South Sea Islands	14,	6,	10,	14,	61,	10,
China, including **Hong Kong**	2,650,	3,033,	3,275,	2,653,	4,241,	2,711,
United States of America	23,447,	9,900,	20,530,	12,543,	17,370,	12,102,
Mexico and Central America	347,	234,	265,	306,	487,	251,
Foreign West Indies and Hayti	1,075,	592,	432,	1,046,	619,	790,
South America (Northern), New Granada, Venezuela, and Ecuador	315,	850,	387,	899,	333,	776,
" **(Pacific)**, Peru, Bolivia, Chili, and Patagonia	2,703,	1,081,	2,262,	1,533,	2,481,	1,189,
" **(Atlantic)** Brazil, Uruguay, and Buenos Ayres	2,443,	3,109,	2,269,	3,173,	3,267,	3,048,
Whale Fisheries; Grnlnd., Davis' Straits, Southn. Whale Fishery, & Falkland Islands	6,	6,	—	—	11,	3,
Total—Foreign Countries	74,004,	44,677,	71,067,	50,584,	69,707,	46,930,
II.—BRITISH POSSESSIONS:						
British India, Ceylon, and Singapore	8,265,	6,428,	7,149,	5,497,	10,613,	5,368,
Austral. Cols.—N. So. W., Vict., and Queensld.	4,962,	2,362,	2,728,	2,506,	3,332,	1,882,
" " So. Aus., W. Aus., Tasm., and N. Zealand	1,991,	1,319,	1,564,	920,	1,709,	608,
British North America	371,	567,	279,	494,	238,	658,
" W. Indies with Btsh. Guiana & Honduras	1,075,	825,	773,	782,	949,	883,
Cape and Natal	1,010,	1,110,	851,	1,121,	776,	968,
Brt. W. Co. of Af., Ascension and St. Helena	123,	201,	71,	162,	105,	238,
Mauritius	397,	147,	460,	145,	603,	171,
Channel Islands	101,	166,	115,	164,	114,	178,
Total—British Possessions	18,295,	13,125,	13,990,	11,791,	18,439,	10,954,
General Total £	92,299,	57,802,	85,055,	62,376,	88,146,	57,884,

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* *i.e.*, British and Irish produce and manufactures.

IMPORTS.—(United Kingdom.)—**First Two Months** (*January—February*), **1874-73-72-71-70.**—*Declared Real Value* (*Ex-duty*), *at Port of Entry* (*and therefore including Freight and Importer's Profit*), *of Articles of Foreign and Colonial Merchandise Imported into the United Kingdom.*

(Two Months.) [000's omitted.] FOREIGN ARTICLES IMPORTED.		1874.	1873.	1872.	1871.	1870.
		£	£	£	£	£
RAW MATLS.–*Textile*, &c.	Cotton Wool	12,166,	11,297,	13,273,	13,387,	8,032,
	Wool (Sheep's) ..	4,429,	3,731,	3,507,	2,307,	1,465,
	Silk*....................	2,647,	2,218,	2,359,	2,269,	2,813,
	Flax	555,	590,	615,	226,	502,
	Hemp	790,	6,246,	1,021,	686,	382,
	Indigo	657,	637,	1,135,	774,	348,
		21,244,	21,910,	21,910,	19,649,	13,542,
,, ,, *Various.*	Hides	800,	878,	998,	530,	234,
	Oils	492,	612,	676,	789,	364,
	Metals	1,846,	1,245,	1,929,	1,345,	429,
	Tallow	493,	364,	520,	618,	221,
	Timber................	1,357,	744,	489,	328,	190,
		4,988,	3,843,	4,612,	3,620,	1,438,
,, ,, *Agrcltl.*	Guano	554,	174,	158,	651,	253,
	Seeds	1,444,	1,175,	1,948,	1,389,	229,
		1,998,	1,349,	2,106,	2,040,	482,
TROPICAL, &c., PRODUCE.	Tea	1,795,	2,177,	2,749,	3,063,	2,229,
	Coffee	854,	689,	553,	482,	138,
	Sugar & Molasses	3,222,	20,94,	3,347,	2,171,	1,859,
	Tobacco	438,	404,	411,	456,	128,
	Rice	483,	460,	300,	174,	44,
	Fruits	487,	422,	475,	961,	281,
	Wines	1,071,	1,128,	1,147,	900,	661,
	Spirits	433,	440,	497,	641,	413,
		12,783,	7,814,	9,479,	8,848,	5,753,
FOOD	Grain and Meal.	9,170,	8,349,	6,661,	4,540,	4,700,
	Provisions	4,244,	3,010,	3,257,	2,495,	1,607,
		13,414,	11,359,	9,918,	7,035,	6,307,
Remainder of Enumerated Articles		2,198,	933,	6,167,	4,129,	1,668,
TOTAL ENUMERATED IMPORTS		56,625,	50,017,	54,192,	45,321,	29,190,
Add for UNENUMERATED IMPORTS (say)		6,000,	5,000,	4,500,	5,665,	7,297,
TOTAL IMPORTS		62,625,	55,017,	58,692,	50,986,	36,487,

* "Silk," inclusive of manufactured silk, "not made up."

EXPORTS.—(United Kingdom.)—**First Three Months** (*January—March*), **1874-73-72-71-70.**—*Declared Real Value, at Port of Shipment, of Articles of* BRITISH *and* IRISH *Produce and Manufactures Exported from United Kingdom.*

(Three Months.) [000's omitted.] BRITISH PRODUCE, &c., EXPORTED.		1874.	1873.	1872.	1871.	1870.
		£	£	£	£	£
MANFRS.—*Textile.*	Cotton Manufactures..	15,104,	10,382,	15,382,	13,066,	13,458,
	,, Yarn	3,700,	2,696,	4,069,	3,165,	3,585,
	Woollen Manufactures	6,344,	8,196,	8,328,	5,757,	5,693,
	,, Yarn	1,259,	1,226,	1,870,	1,204,	1,316,
	Silk Manufactures........	541,	510,	637,	517,	605,
	,, Yarn	344,	442,	265,	320,	56,
	Linen Manufactures	2,040,	2,127,	2,219,	1,689,	1,855,
	,, Yarn	445,	520,	558,	504,	622,
		29,777,	26,099,	33,328,	26,222,	27,190,
,, *Sewed.*	Apparel	647,	766,	694,	622,	419,
	Haberdy. and Mllnry.	1,441,	1,637,	1,589,	1,340,	1,146,
		2,088,	2,403,	2,283,	1,962,	1,565,
METALS, &c.	Hardware	991,	1,167,	1,046,	715,	1,023,
	Machinery	1,411,	2,061,	1,571,	849,	1,050,
	Iron	7,021,	8,376,	6,251,	4,298,	4,240,
	Copper and Brass........	714,	941,	669,	568,	855,
	Lead and Tin	453,	262,	418,	291,	986,
	Coals and Culm	2,899,	2,741,	1,644,	1,106,	1,147,
		13,489,	15,548,	11,599,	7,827,	9,301,
Ceramic Manufcts.	Earthenware and Glass	667,	819,	640,	489,	597,
Indigenous Mnfrs. and Products.	Beer and Ale................	731,	674,	648,	522,	575,
	Butter	53,	52,	74,	62,	57,
	Cheese	17,	20,	20,	32,	27,
	Candles	46,	49,	60,	41,	27,
	Salt................................	108,	152,	80,	105,	61,
	Spirits	39,	59,	51,	51,	44,
	Soda	—	—	467,	305,	295,
		994,	1,006,	1,400,	1,118,	1,086,
Various Manufcts.	Books, Printed	182,	183,	165,	134,	134,
	Furniture	—	—	—	—	47,
	Leather Manufactures	695,	171,	930,	1,126,	612,
	Soap	57,	59,	72,	46,	53,
	Plate and Watches	60,	47,	40,	36,	101,
	Stationery	162,	152,	126,	96,	117,
		1,156,	612,	1,333,	1,438,	1,064,
Remainder of Enumerated Articles		48,171,	12,089,	3,579,	4,120,	2,525,
Unenumerated Articles..............................		9,631,	3,800,	3,013,	3,255,	2,350,
TOTAL EXPORTS....................		57,802,	62,376,	57,175,	46,431,	45,678,

SHIPPING.—(United Kingdom.)—*Account of Tonnage of Vessels Entered and Cleared with Cargoes, from and to Various Countries, during the* **Three Months** *ended March*, 1874-73-72.

Countries from whence Entered and to which Cleared.	Total British and Foreign.					
	1874.		1873.		1872.	
	Entered.	Cleared.	Entered.	Cleared.	Entered.	Cleared.
FOREIGN COUNTRIES.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Russia { Northern ports	76,219	42,056	24,135	19,703	33,885	12,277
Russia { Southern "	70,589	28,905	132,732	44,345	219,632	59,473
Sweden	166,449	107,260	107,107	73,529	87,923	62,902
Norway	176,181	50,115	213,995	42,323	193,744	36,079
Denmark	44,511	115,411	46,780	81,834	41,996	91,203
Germany	305,414	399,039	311,880	361,842	273,096	380,244
Holland	193,603	205,668	194,628	226,538	190,802	221,299
Belgium	212,870	204,457	222,650	243,343	198,538	186,141
France	396,466	597,981	459,531	612,386	402,806	683,022
Spain	222,300	163,524	206,568	157,562	175,083	164,677
Portugal	83,986	88,552	74,300	72,111	64,676	60,462
Italy	56,160	202,025	62,303	178,294	55,418	200,405
Austrian territories	6,513	21,123	4,918	31,399	12,579	57,002
Greece	26,051	13,338	13,739	16,338	30,146	15,475
Turkey (including Wallachia and Moldavia)	55,210	83,882	68,857	75,393	64,523	92,335
Egypt	90,503	145,652	139,639	147,592	153,333	111,631
United States of America	956,450	545,797	733,075	524,248	597,073	550,152
Mexico, Foreign West Indies, and Central America	77,061	131,484	38,973	120,822	43,808	120,529
Brazil	57,424	130,114	48,570	81,892	66,217	92,818
Peru	92,564	16,899	56,595	49,100	32,604	51,266
Chili	17,270	54,713	19,487	59,961	21,403	48,561
China	26,342	2,608	30,995	7,552	44,550	20,640
Other countries	142,975	154,576	107,791	138,295	126,739	147,039
Total, Foreign Countries	3,553,111	3,505,179	3,319,248	3,366,402	3,130,574	3,465,632
BRITISH POSSESSIONS.						
North American Colonies	34,820	66,178	40,752	67,023	30,275	111,825
East Indies, including Ceylon, Singapore, and Mauritius	221,733	252,429	198,607	237,587	243,843	301,424
Australia and New Zealand	78,511	126,650	44,237	100,735	55,548	77,571
West Indies	17,987	36,945	19,954	46,091	20,774	57,447
Channel Islands	54,328	33,568	51,059	37,317	53,423	42,615
Other possessions	58,587	224,528	54,679	202,181	53,367	222,169
Total, British Possessions	465,966	740,298	409,288	690,934	457,230	813,051
TOTAL FOREIGN COUNTRIES AND BRITISH POSSESSIONS.						
Three months ended March, { 1874	4,091,077	4,245,477	—	—	—	—
Three months ended March, { '73	—	—	3,728,536	4,057,336	—	—
Three months ended March, { '72	—	—	—	—	3,587,804	4,278,683

GOLD AND SILVER BULLION AND SPECIE.—IMPORTED AND EXPORTED.—(United Kingdom.)—*Computed Real Value for the* **Three Months** (*January—March*), **1874-73-72.**

[000's omitted.]

(First Three Months.)	1874.		1873.		1872.	
	Gold.	*Silver.*	Gold.	*Silver.*	Gold.	*Silver.*
Imported from:—	£	£	£	£	£	£
Australia	1,382,	6,	1,813,	4,	1,767,	7,
So. Amca. and W. Indies	964,	966,	234,	644,	216,	579,
United States and Cal.	53,	1,144,	1,435,	1,482,	107,	696,
	2,129,	2,116,	3,482,	2,130,	2,090,	1,282,
France	149,	253,	108,	535,	77,	194,
Germany, Holl. & Belg.	128,	1,148,	9,	6,	30,	1,727,
Prtgl., Spain, and Gbrltr.	9,	10,	20,	19,	12,	10,
Mlta., Trky., and Egypt	235,	2,	40,	2,	29,	10,
China	161,	149,	1,	85,	—	—
West Coast of Africa	14,	2,	15,	—	18,	—
All other Countries	91,	500,	19,	70,	18,	18,
Totals Imported	2,916,	4,180,	3,694,	2,847,	2,274,	3,241,
Exported to:—						
France	810,	241,	363,	567,	120,	55,
Germany, Holl. & Belg.	698,	125,	2,034,	634,	322,	106,
Prtgl., Spain, and Gbrltr.	39,	96,	2,593,	119,	949,	141,
	1,547,	462,	4,990,	1,320,	1,391,	302,
Ind. and China (viâ Egypt)	172,	2,996,	772,	590,	600,	3,332,
Danish West Indies	—	—	—	—	—	—
United States	1,	—	—	—	—	—
South Africa	4,	10,	136,	23,	744,	54,
Mauritius	—	—	—	—	—	—
Brazil	185,	—	25,	—	217,	—
All other Countries	1,301,	324,	534,	632,	1,896,	564,
Totals Exported	3,210,	3,792,	6,457,	2,565,	4,848,	4,252,
Excess of *Imports*	—	388,	—	282,	—	—
" Exports	294,	—	2,763,	—	2,574,	1,011,

REVENUE.—(UNITED KINGDOM.)—31ST MARCH, 1874-73-72-71.

Net Produce in QUARTERS *and* YEARS *ended* 31*st* MARCH, 1874-73-72-71.

[000's omitted.]

QUARTERS, ended 31st March.	1874.	1873.	1874.		Corresponding Quarters.	
			Less.	More.	1872.	1871.
	£	£	£	£	£	£
Customs	4,898,	5,299,	401,	—	5,017,	4,927,
Excise	8,524,	7,914,	—	610,	7,453,	7,365,
Stamps	2,693,	2,615,	—	78,	2,540,	2,412,
Taxes	1,848,	1,881,	33,	—	1,903,	1,911,
Post Office	1,500,	1,240,	—	260,	1,280,	1,290,
Telegraph Service	359,	280,	—	79,	170,	100,
	19,822,	19,229,	434,	1,027,	18,363,	18,005,
Property Tax	3,794,	4,934,	1,140,	—	7,070,	4,674,
	23,616,	24,163,	1,574,	1,027,	25,433,	22,679,
Crown Lands	95,	110,	15,	—	110,	120,
Miscellaneous............	836,	651,	—	185,	461,	706,
Totals	24,547,	24,924,	1,589,	1,212,	26,004,	23,505,
			NET DECR. £337,			

YEARS, ended 31st March.	1874.	1873.	1874.		Corresponding Years.	
			Less.	More.	1872.	1871.
	£	£	£	£	£	£
Customs	20,339,	21,033,	694,	—	20,326,	20,191,
Excise	27,172,	25,785,	—	1,387,	23,326,	22,788,
Stamps	10,550,	9,947,	—	603,	9,772,	9,007,
Taxes	2,324,	2,337,	13,	—	2,330,	2,725,
Post Office	5,792,	4,820,	—	972,	4,680,	4,770,
Telegraph Service	1,210,	1,015,	—	195,	755,	500,
	67,387,	64,937,	707,	3,157,	61,189,	59,981,
Property Tax	5,691,	7,500,	1,809,	—	9,084,	6,350,
	73,078,	72,437,	2,516,	3,157,	70,273,	66,331,
Crown Lands	375,	375,	—	—	375,	385,
Miscellaneous............	3,883,	3,797,	—	86,	4,060,	3,229,
Totals	77,336,	76,609,	2,516,	3,243,	74,708,	69,945,
			NET INCR. £727,			

REVENUE.—UNITED KINGDOM.—QUARTER ENDED 31ST MARCH, 1874:—

An Account showing the REVENUE *and other* RECEIPTS *in the* QUARTER *ended* 31*st March*, 1874; *the* ISSUES *out of the same, and the Charges on the Consolidated Fund at that Date, and the Surplus or Deficiency of the Balance in the Exchequer on the* 31*st of March*, 1874, *in respect of such Charges.*

Received:—

	£
Income received, as shown in Account I	24,547,064
Amount raised on Account of Fortifications, per Act 32 and 33 Vict., cap. 76	250,000
Ditto, Military Barracks, per Act 35 and 36 Vict., cap. 68	250,000
Amount received in Repayment of Advances for Public Works, &c.	529,000
" for Greenwich Hospital	51,757
Total	£25,627,821

Paid:—

		£
Net Deficiency of the Balance in the Exchequer to meet the Charge on the 31st of December, 1873, as per last Account	£5,163,011	
Amount applied out of the Income to *Supply Services*		11,283,340
" advanced for Greenwich Hospital		51,757
Charge of the *Consolidated Fund* on the 31st of March, 1874, viz.:—		
Interest of the Permanent Debt	£4,979,537	
Terminable Annuities	1,508,339	
Principal of Exchequer Bills	107,900	
Interest "	24,125	
" of Deficiency Advances	2,381	
The Civil List	101,531	
Other Charges on Consolidated Fund (including 500,000*l.* for Fortifications and Military Barracks)	774,263	
Advances for Public Works, &c.	926,544	
Sinking Fund	374,123	
		8,798,743
Surplus balance in the Exchequer on the 31st of March, 1874, beyond the amount of the charge on the Consolidated Fund on that date, payable in June quarter, 1874, viz.:—		
Excess of Charge in Great Britain	£677,042	
Surplus over Charge in Ireland	1,008,012	
Net surplus		*330,970
Total		25,627,821

* Charge on 31st of March, 1874 (as above)	£8,798,743
Paid out of growing produce in March quarter, 1874	1,686,859
Portion of the Charge payable in June quarter, 1874	7,111,884
To meet which there was in the Exchequer on the 31st of March, 1874	7,442,854
Net surplus as above	330,970

BRITISH CORN.—*Gazette Average Prices* (ENGLAND AND WALES), *First Quarter of* 1874.

[This Table is communicated by the Statistical and Corn Department, Board of Trade.]

Weeks ended on Saturday.	Weekly Average. (Per Impl. Quarter.)					
	Wheat.		Barley.		Oats.	
1874.	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
January 3	61	8	44	4	25	5
" 10	62	1	43	11	26	1
" 17	62	6	46	2	27	2
" 24	63	3	46	5	27	10
" 31	63	9	47	7	28	2
Average for January	62	7	45	8	26	11
February 7	63	9	48	9	28	3
" 14	63	2	48	9	28	1
" 21	62	10	49	1	28	10
" 28	62	1	49	3	29	4
Average for February	62	11	48	11	28	7
March 7	61	6	48	5	28	11
" 14	60	8	48	4	28	10
" 21	60	9	48	1	28	3
" 28	60	10	48	6	28	7
Average for March	60	11	48	4	28	7
Average for the quarter	62	2	47	6	27	11

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), for Wednesday in each Week, during the FIRST QUARTER *(January—March) of* 1874.

[0,000's omitted.]

1	2	3	4	5	6	7	
Issue Department.					Collateral Columns.		
Liabilities.	Dates.	Assets.					
Notes Issued.	(Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.	Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.	
£ Mlns.	1874.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	1874.	Per cnt.
37,36	Jan. 7	11,02	3,98	22,36	26,10	8 Jan.	4
37,26	„ 14	11,02	3,98	22,26	25,92	15 „	3½
37,32	„ 21	11,02	3,98	22,32	25,78		
37,32	„ 28	11,02	3,98	22,32	25,36		
36,56	Feb. 4	11,02	3,98	21,56	26,01		
36,73	„ 11	11,02	3,98	21,73	25,31		
37,02	„ 18	11,02	3,98	22,02	25,00		
37,24	„ 25	11,02	3,98	22,24	24,82		
37,61	Mar. 4	11,02	3,98	22,61	25,68		
37,42	„ 11	11,02	3,98	22,42	25,12		
37,40	„ 18	11,02	3,98	22,40	25,11		
37,41	„ 25	11,02	3,98	22,41	25,64		

BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18
Liabilities.					Dates.	Assets.				Totals of Liabilities and Assets.
Capital and Rest.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.		
Capital.	Rest.	Public.	Private.		(Wdnsdys.)	Government.	Other.	Notes.	Gold and Silver Coin.	
£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	1874.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
14,55	3,38	5,37	21,58	,38	Jan. 7	15,50	17,92	11,26	,59	45,27
14,55	3,39	5,14	20,34	,42	„ 14	15,20	16,70	11,34	,60	43,84
14,55	3,42	4,85	20,59	,39	„ 21	14,80	16,72	11,54	,74	43,80
14,55	3,42	5,62	20,00	,36	„ 28	14,24	16,98	11,96	,77	43,95
14,55	3,43	6,08	17,72	,39	Feb. 4	13,90	16,98	10,55	,74	42,17
14,55	3,44	6,77	19,13	,38	„ 11	13,90	18,18	11,42	,77	44,27
14,55	3,46	7,79	18,11	,38	„ 18	13,89	17,61	12,02	,76	44,28
14,55	3,43	8,68	17,69	,39	„ 25	13,90	17,68	12,42	,72	44,72
14,55	3,76	9,08	17,15	,39	Mar. 4	13,85	18,41	11,93	,74	44,93
14,55	3,77	9,70	17,16	,41	„ 11	13,85	18,69	12,30	,74	45,58
14,55	3,80	10,10	17,39	,38	„ 18	13,81	19,34	12,29	,77	46,21
14,55	3,81	10,65	16,89	,37	„ 25	13,81	19,96	11,77	,73	46,27

LONDON CLEARING; CIRCULATION, PRIVATE AND PROVINCIAL.

The London Clearing, and the Average Amount of Promissory Notes in Circulation in ENGLAND *and* WALES *on Saturday in each Week during the* FIRST QUARTER (*January —March*) *of* 1874; *and in* SCOTLAND *and* IRELAND, *at the Three Dates, as under.*

[0,000's omitted.]

ENGLAND AND WALES.					SCOTLAND.				IRELAND.		
DATES. *Saturday.*	*London:* Cleared in each Week ended *Wednesday.**	Private Banks. (Fixed Issues, 3,89).	Joint Stock Banks. (Fixed Issues, 2,74).	TOTAL. (Fixed Issues, 6,63).	Weeks ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2,76).	£5 and upwards	Under £5.	TOTAL. (Fixed Issues, 6,35).
1874.	£	£	£	£	1874.	£	£	£	£	£	£
Jan. 3	105,55	2,73	2,39	5,12							
„ 10	120,23	2,80	2,46	5,26							
„ 17	101,80	2,80	2,47	5,27							
„ 24	137,19	2,77	2,44	5,21	Jan. 24	1,90	3,80	5,70	3,75	3,13	6,88
„ 31	101,06	2,77	2,40	5,17							
Feb. 7	136,26	2,74	2,40	5,14							
„ 14	97,94	2,68	2,39	5,07							
„ 21	131,83	2,63	2,37	5,00	Feb. 21	1,82	3,70	5,52	3,81	3,06	6,87
„ 28	100,37	2,70	2,35	5,05							
Mar. 7	144,10	2,62	2,39	5,01							
„ 14	98,29	2,58	2,39	4,97							
„ 21	128,89	2,59	2,40	4,99	Mar. 21	1,78	3,68	5,46	3,73	2,96	6,69
„ 28	96,29	2,66	2,46	5,12							

* The Wednesdays *preceding* the Saturdays.

FOREIGN EXCHANGES.—*Quotations as under,* LONDON *on Paris, Hamburg and Calcutta;—and New York, Calcutta, Hong Kong and Sydney, on* LONDON.

1	2	3	4	5	6	7	8	9
				Calcutta.				
DATES.	London on Paris. 3 m.d.	London on Hamburg. 3 m.d.	New York. 60 d. s.	India Council. 60 d. s.	At Calcutta on London. 6 m. d.	Hong Kong. 6 m. d.	Sydney. 30 d. s.	Standard *Silver* in bars in London pr. oz.
1874.			per. cnt.	*d.*	*d.*	*d.*	per cnt.	*d.*
Jan. 3	25·27$\frac{1}{2}$	20·55	108$\frac{3}{4}$	21$\frac{7}{8}$	—	50$\frac{1}{2}$	—	58$\frac{3}{8}$
„ 17	25·32$\frac{1}{2}$	20·45	483	22$\frac{3}{4}$	22$\frac{13}{16}$	„	—	59$\frac{3}{8}$
Feb. 7	25·30	20·54	485	22$\frac{3}{4}$	23$\frac{5}{8}$	51$\frac{3}{4}$	—	59$\frac{5}{8}$
„ 21	25·32$\frac{1}{2}$	20·52	485	22$\frac{5}{8}$	23$\frac{5}{16}$	—	—	58$\frac{5}{8}$
Mar. 7	25·30	20·52	484	22$\frac{1}{2}$	23	51$\frac{1}{2}$	—	58$\frac{1}{4}$
„ 21	25·30	20·56	484	23	23$\frac{3}{8}$	51$\frac{3}{4}$	—	59$\frac{3}{8}$

ADDITIONS TO THE LIBRARY DURING THE QUARTER ENDED 30TH JUNE, 1874.

Donations.	By whom Presented.
Les Eaux Thermales de l'île de San Miguel, Portugal	Portuguese Legation
Sixteenth Annual Report of the Registrar-General of Scotland	The Registrar-General of Scotland
Foreign Stock Manual, 1874. By W. T. F. M. Ingall, Esq.	The Author
Particulars of Stocks, 1874. By W. T. F. M. Ingal, Esq.	”
Tables of Drawings of Foreign Stocks. By W. T. F. M. Ingall, Esq.	”
The New Harbour at Dover. By Capt, J. C. Hoseason, R.N.	The Author
South Australian Directory, 1874. Edited by Josiah Boothby, Esq.	The Editor
On the Geometrical Isomorphism of Crystals. From the Journal of the Victoria Institute	The Victoria Institute
Transactions of the Historic Society of Lancashire and Cheshire. Vol. xiii	The Society
The Mauritius Almanac and Colonial Register for 1874. Edited by J. B. Kyshe, Esq.	The Editor
List of Fellows, &c., of the Royal College of Physicians	The College
An Address to the Actuarial Society of Edinburgh. By W. Thomas Thomson, Esq., F.F.A.	The Society
Statistics of the Colony of Queensland for 1872, and the Thirteenth Annual Report of the Registrar-General of Queensland for 1872	Registrar-General, Brisbane
The Medical Record of New York, for January, February, March, April, and May	The Publishers
A Gazetteer of the Province of Sindh. Compiled by A. W. Hughes, F.S.S. With Maps and Photographic Illustrations. London	The Author
Untersuchungen über die Einkommensteuer der Stadt. Pest, 1870	The President of the Board of Trade
Special Catalog der im Pavillion der österr: Handelsmarine und Maritimen Etablissements, 1873	Austrian Consul-General
Journal de Statistique Suisse. Bern, 1874	The Editor
Zeitschrift des K: Preussischen Statistichen Bureaus, 1873. Berlin, 1873	Dr. Ernest Engel
Installation de M. Ch. Faider. Bruxelles	The President, Commission Centrale de Statistique
Principe d'une Théorie Mathématique de l'Exchange	M. Leon Walras
Statistics of New Zealand for 1872 (2 copies)	Registrar-General, New Zealand
Report of the Commissioners of Education in the United States of America for 1872	The President of the United States Bureau of Education
Address and Proceedings of the National Education Association at St. Louis, Mo., 1871, and at Boston, Massachusetts, 1872	”
Thirteen Circulars of Information of the Bureau of Education	”
Annual Report of John M. Woodworth, Esq., M.D., the Supervising Surgeon of the Marine-Hospital Service of the United States for 1873	The Author

Donations—Contd.

Donations.	By whom Presented.
Hivatalos Statistekai Közelmények Kiadja az orzágos Magyar Kir Statistikai Hivatal. Budapest, 1874	Le Chef du Bureau de Statistique Royal Hongrois
Idées sur la Statistique Agricole	,,
Gedanken über die Kriterien Der Nationalitat	,,
Quelques Remarques sur les Méthodes Graphiques et Géographiques	,,
Return of Loans raised in India. January, 1874	India Office
East India Loans raised in England. April 1874	,,
East India Recruits, Correspondence relating to	,,
Sale of Lands at Bombay	,,
Slave Trade, East Coast of Africa. Papers No. 1—6 (1874)	,,
East India Medical Reports	,,
Army Staff Officers in India	,,
East India Government Studs	,,
Correspondence respecting Central Asia	,,
Correspondence respecting Turkish Proceedings in the Neighbourhood of Aden	,,
Telegrams between the Government of India and the Secretary of State in Council relating to the Famine in Bengal, from October, 1873, to 31st March, 1874	,,
Correspondence between the Government of India and the Secretary of State in Council relative to the Famine in Bengal. Parts 1, 2, 3 and 4	,,
Abstract of Correspondence between Government of India and the Secretary of State in Council relative to the Drought in Bengal	,,
Proceedings of the Literary and Philosophical Society of Manchester. Vols. viii, ix, and x, 1868-71	The Society
Memoirs of the Literary and Philosophical Society of Manchester. Third Series. Vol iv	,,
First and Second Reports of the Leeds Public Library, 1870-73	The Secretary
Reports of the Inspectors of Factories	Mr. A. Redgrave
The Railways, Amalgamated and Grouped in Competing Systems. By B. Haughton, Esq., C.E., &c.	The Author
Proceedings of the Royal Society of Edinburgh. Vol. viii, 1872-73	The Society
Transactions of the Royal Society of Edinburgh. Vol. xxvi, 1872-73	,,
Algebra identified with Geometry. By A. J. Ellis, F.R.S.	The Author
The United States Almanack or Complete Ephemeris for 1843	S. M. Drach, Esq.
The Elements of Commerce; or a Complete System of Commercial Calculations. By Christopher Dubost. In 2 vols. 1805	,,
Publications of the Surtees Society. Vol. lix	The Society
Statistica del Regno d'Italia	Bureau de Statistique Général d'Italie
Opere pie della Compania	,,
,, Toscana	,,

Donations—Contd.

Donations.	By whom Presented.
Statistica del Regno d'Italia—*Contd.*	
Opere pie della Sicilia	Bureau de Statistique Général d'Italie
Casse di Risparmio, 1868	„
„ '69	„
Bilanci Provinciali, '70	„
„ '71-72	„
„ Comunali, 1874	„
Movimenti dello Stato Civile, 1870	„
Censimento degli Italiani all Estero, 1871	„
Navigazione nei porte de regno, 1870	„
„ „ '71	„
Italia Economica for 1873 (with Tables)	„
Annali Statistica, 1872-73	„
„ 1° Trimestre, 1872	„
„ 3° Trimester, '70	„
Statistici de regno d'Italia	„
Saggio sul Commercio esterno del regno id	„
Bank of England Note Issue and its Error. By Ernest Seyd	The Author
Reports of the United States Commissioner of Internal Revenue System for Years ending June, 1863-68	A. Delmar, Esq., Philadelphia, United States of America
Reports of the United States Commissioner of Education for 1871-72	„
Reports of the United States Special Commissioner of Revenue for 1866-67	„
New York Insurance Report, 1869-72	„
Finance Reports, United States, 1853-73	„
Reports of the Secretary of the Treasury of the Commerce and Navigation of the United States. Years ending June, 1851-57	„
Annual Reports of the Bureau of Statistics, Commerce, and Navigation of the United States, for 1867-72	„
The Statutes at Large and Treaties of the United States of America for 1861-65	„
Regulations Under the United States Revenue Laws, 1857	„
Reports of a Commissioner for a Revision of the Revenue System of the United States, 1865-66	„
Letters from the Secretary United States Treasury transmitting Estimates of Appropriations, 1867-71	„
First List of Merchant Vessels of the United States for Year ending June, 1867	„
Receipts and Expenditures of the United States for 1864-68	„
Commercial Regulations between the United States and Foreign Nations, 1871	„
Speech of Alexander Delmar, late United States Commissioner of Statistics, at Columbus, 25th August, 1872 (2 copies)	„
Annual Report of the United States Deputy Special Commissioner of the Revenue, Commerce, and Navigation, 1868	„

Donations—Contd.

Donations.	By whom Presented.
Statistics of Population, Ninth Census of the United States, 1870 (2 copies)	A. Delmar, Esq., Philadelphia
Ninth Census of the United States (Agriculture), 1870	"
Eighth Census of the United States (Mortality, Population, Manufactures, and Agriculture), 1860. 4 vols.	"
Thirty-Three Monthly Reports on Commerce and Navigation of the United States. By the Chief of the Bureau of Statistics, 1871-73	"
List of Post Offices in the United States, with the Names of Post Masters, 1868	"
Remarks on the Statistics of Wealth and Public Indebtedness at the Census of 1870-60-50	"
Monthly Report of the Bureau of Statistics. Nos. 1 to 20, from November, 1866, to August, 1868	"
Beiträge zur Statistik der Stadt Frankfurt am Main	Le Chef du Bureau
Frankfurter Bank. Geschäfts Bericht uber das Berwaltungsjahr, 1873	"
Where are We? Three Articles by R. Bailey Walker, F.S.S.	The Author
Birmingham Free Libraries Committee, Twelfth Annual Report of, 1873	The Secretary
Criminal Return, Metropolitan Police, 1873	Metropolitan Police Office
Astronomical and Meteorological Observations, made during the Year 1871, at the United States Naval Observatory, Washington	Rear-Admiral B. F. Sands, U.S., Superintendent
Proceedings of the American Philosophical Society. Vol. xiii, Nos. 90 and 91. 1873	The Society
Transactions of the American Philosophical Society. Vol. xv, New Series, Part 1	"
Sundry Reports of the Committee of the Bengal Chamber of Commerce, between 1st November, 1860, and 30th April, 1871	Rev. J. Long, of Calcutta
Adam's Reports on Vernacular Education in Bengal and Behar	"
Statutes of the Insurance Company "Yakor," 1872	"
Peeps into Social Life in Calcutta a Century Ago. By Rev. J. Long	"
Thoughts on Popular Education. By Yakoordass Chuckerbutty	"
The Claims of the Poor. A pamphlet	"
Letter from Mr. Cobden, M.P. A pamphlet	"
Village Communities in India and Russia. A pamphlet	"
Russian Trade with India. A pamphlet	"
Proposals for the Organisation of Cooley Labour. A pamphlet	"
Proceedings of the American Academy of Arts and Sciences. Vol. viii, 1873	The Secretary
Journal of the Royal Agricultural Society. Vol. x, Part 1	The Society
The Athenæum. Parts 555, 556, and 557	The Editor

Donations—Contd.

Donations.	By whom Presented.
Revue Bibliographique Universelle. March, April, and May	The Editor
Journal of the Franklin Institute. 3rd Series. Vol. lxvii, Nos. 3, 4 and 5	The Institute
The Bankers' Magazine. Nos. 361, 362 and 363	The Editor
Proceedings of the Social Science Association, March, April, and May	The Association
Journal of the Institute of Actuaries. Part 2, Vol. xviii	The Institute
The Indian Economist. January, February, and March	Robert Knight, Esq., Calcutta, Proprietor
The Agricultural Gazette of India. Vol. v	
The Statistical Reporter (Calcutta). No. 8	
Transactions of the Institution of Surveyors. Parts 9 to 13, Vol. vi	The Institution
Revista de Portugal e Brazil. March, April, and May	The Directors
Proceedings of the Royal Geographical Society	The Society
Proceedings of the Asiatic Society of Bengal. November and December, 1873, January, 1874	"
Journal of the Asiatic Society of Bengal. Vol. xlii, Nos. 186 and 187	"
Journal of the Royal United Institution. Vol. xviii, No. 26	The Institution
Journal of the East Indian Association. Vol. viii, No. 1	The Association
Proceedings of the Royal Institution. Vol. vii, Part 2	The Institution
Trade and Navigation Accounts, Relating to. April	Board of Trade
Proceedings, Royal Medical Chirurgical Society. Vol. vii, No. 5	The Society
The Labourer's Friend	The Editor
Journal, Literary and Philosophical Society of Manchester	The Society
Italian Meteorological Returns. March, April, and May	The Minister of Agricultural Industry and Commerce, Rome
Austria, Gesetzgebung und Statistik, &c. Vol. xxvi, Nos. 15 to 23	Government of Austria
Rassegna Settimanale Della Giunta Comunale di Statistica, di Firenze. Vol. vi, Nos. 13 to 20	Giunta Comunale di Statistica

Purchased.

Annales d'Hygiène Publique. April.

Journal des Economistes. March, April, and May.

Vol. XXXVII.] [Part III.

JOURNAL OF THE STATISTICAL SOCIETY,

SEPTEMBER, 1874.

REPORT *of the* COUNCIL *for the* FINANCIAL YEAR *ended* 31*st December*, 1873, *and for the* SESSIONAL YEAR *ended* 30*th June*, 1874, *presented at the* FORTIETH ANNIVERSARY MEETING *of the* STATISTICAL SOCIETY, *held at the Society's Rooms*, 12, *St. James's Square, on the* 30*th of June*, 1874, *with the* PROCEEDINGS *of that Meeting*.

Report of the Council.

THE fortieth anniversary of the existence of the Society finds the Council in a position to announce to the Fellows, a continuance of the prosperity notified at the general meeting held in 1873. The system adopted in that year of making known to all likely to be interested in statistical science, the nature and objects of the Society, was again adopted, with a fair amount of success, as the subjoined comparative table shows:—

Particulars.	1873.	1872.	1871.
Number of Fellows on 31st December	530	454	431
Life Members included in above	75	72	63
Members lost during the year by death, or withdrawal	34	17	17
New Members elected	110	40	45

The financial state of the Society exhibits a corresponding result, notwithstanding an unusually heavy loss of Members by death and withdrawal. The numbers so lost, being by deaths 17, withdrawals 17.

Particulars.	1873.	1872.	1871.	1870.
	£	£	£	£
Balance at beginning of year	411	290	214	200
Receipts from all sources	1,248	1,112	880	852
Cash balance at end of year	376	411	290	214
Surplus of assets over liabilities	2,508	2,357	2,061	1,954

The Session was opened, as usual, by the President's address, subsequent to which papers were read and discussed by the gentlemen mentioned, on the subjects noted in the subjoined abstract of the monthly proceedings of the Society, in the order of their succession.

Proceedings of the Statistical Society—

SESSION 1873-74.

First Ordinary Meeting, Tuesday, 18*th November,* 1873.

DR. GUY, F.R.S., President, in the Chair.

The undermentioned were elected Fellows, viz.:—

The Right Hon. the Baroness Burdett-Coutts.

Major Q. Vivian, D.L.
Dr. J. Forbes Watson.
The Right Hon. the Earl of Rosebery.
Thomas Charrington.
Frederick Charlesworth.
Major F. H. Noott.
Edward W. Browne.
Edward Dent.
Clinton Thomas Dent.
T. Randolph Mellor.
Francis S. Leslie.
Sir Willoughby Jones, Bart.
Dr. John J. D. Burns, R.N.
Jabez S. Balfour.
George W. Southern.

Robert F. Burrow.
Henry A. Hunt, C.B.
Juland Danvers.
Colonel J. F. Smith, R.E.
Henry Wakeford.
James Morton.
Nathaniel Cork, F.R.G.S.
Sir H. L. Anderson, K.C.S.I.
F. F. Barham.
Adolf Ellissen.
Lawson Tait, F.R.C.S.
Joseph A. Meen.
Frederick T. Haggard.
The Rev. Earle Welby.
Lewis Wells.

The Right Hon. Lord Lawrence, G.C.B., G.C.S.I.

The President read his "Inaugural Address."

Second Ordinary Meeting, Tuesday, 16*th December,* 1873.

DR. GUY, F.R.S., President, in the Chair.

The undermentioned were elected Fellows, viz.:—

J. L. Napier Hay.
Henry F. Skoines.
Capt. George Cockle, F.R.G.S.

James Lewis.
James T. Dawson.
Charles William Pearce.

The following Paper was read:—

"High Price of Coal: Suggestions for Neutralising its Evils." By Sir Rowland Hill, K.C.B., D.C.L., F.R.S.

Third Ordinary Meeting, Tuesday, 20*th January,* 1874.

DR. GUY, F.R.S., President, in the Chair.

The undermentioned was elected a Fellow, viz.:—

Charles Campbell Prinsep, Esq.

The following Paper was read:—

"The Recent Progress of National Debts." By Mr. R. Dudley Baxter, M.A.

Fourth Ordinary Meeting, Tuesday, 17th February, 1874.

Dr. Guy, F.R.S., President, in the Chair.

The undermentioned were elected Fellows, viz.:—

Andrew Broom.
Francis Saunders.
George D. Hooper.

The following Paper was read:—

"Some Statistics of the Courts of Justice and of Legal Procedure in England." By Mr. F. H. Janson, F.L.S.

Fifth Ordinary Meeting, Tuesday, 17th March, 1874.

Dr. Farr, F.R.S., Vice-President, in the Chair.

The undermentioned were elected Fellows, viz.:—

John Collinson, F.R.G.S.
William Thomas F. M. Ingall.
John Brewer.
Ernest G. Ravenstein.
Eugene Collins, M.P.
Baron Julius de Reuter.
Sampson S. Lloyd, M.P.
Edward Good.
William John Vian.

The following Paper was read:—

"Census of Bengal." By Mr. Henry Beverley, B.C.S.

Sixth Ordinary Meeting, Tuesday, 21st April, 1874.

Dr. Guy, F.R.S., President, in the Chair.

The undermentioned were elected Fellows, viz.:—

John Corbett, M.P.
Herbert Cowell.
Hon. Frederick G. B. Ponsonby.
John Morris.
Charles E. C. B. Appleton, D.C.L.
Laurence T. Cave.

The following Paper was read:—

"On the Reconstruction of the Income and Property Tax." By Professor Leone Levi.

Seventh Ordinary Meeting, Tuesday, 19th May, 1874.

Dr. Guy, F.R.S., President, in the Chair.

The undermentioned were elected Fellows, viz.:—

Robert P. Wilson.
G. M. W. Sandford, M.P.
John Charles Price.
Charles Rutherford.
John H. Mackenzie, F.R.G.S.
Charles R. Moore.
Edward Wanklyn.
Henry Collinson, F.L.S.
David Chinery, F.R.G.S.
J. Bramley-Moore, D.L., J.P.
Sir W. E. Baker, R.E., K.C.B.
Clements R. Markham, C.B.
Faithful Cookson, F.R.G.S.
F. D. Mocatta, F.R.G.S.
The Right Hon. Sir John M. Macleod, K.C.S.I.

The following Papers were read :—

"Statistics of Deaths by Suicide among Her Majesty's British "Troops serving at Home and Abroad during the Ten Years, "1862-71." By Mr. W. H. Millar; and—

"The Elections of 1868 and 1874." By Mr. John Biddulph Martin.

Eighth Ordinary Meeting, Tuesday, 16th June, 1874.

DR. GUY, F.R.S., President, in the Chair.

The undermentioned were elected Fellows, viz.:—

Edward Smith.	William Burr.

Noel Algernon Humphreys.

The following Papers were read :—

"Local Government among different Nations." By Sir Charles W. Dilke, Bart., M.P.; and—

"The Co-operative Land Movement." By Mr. E. W. Brabrook.

The attendance at the meetings, and the value of the discussions were in no way diminished, as the published reports in the *Journal* of the Society prove.

Last year, the Society had the pleasure of testifying to His Imperial Highness the Grand Duke Constantine their appreciation of the reception in Russia, at the International Statistical Congress of 1872, of the delegates from this country.

Within the past month the Society had the distinguished honour of forwarding an address of welcome and thanks to His Imperial Majesty the Emperor of Russia, on his visit to Her Most Gracious Majesty the Queen.

The text of the address is subjoined. It was forwarded to His Majesty, and signed by His Royal Highness the Honorary President, a gracious and courteous proceeding which considerably enhances its value in the estimation of the Council.

To His Imperial Majesty Alexander II, Emperor of All the Russias.

SIRE,

We, the President, Vice-Presidents, and Council of the Statistical Society, avail ourselves of your Majesty's visit to our Most Gracious Sovereign, to tender to your Majesty our warmest and most grateful acknowledgments for the truly imperial and cordial reception accorded to our representatives at the International Statistical Congress held at St. Petersburg in 1872, under the presidency of His Imperial Highness the Grand Duke Constantine.

From the moment of their arrival at the frontiers of your Majesty's dominions, during their stay in the ancient and modern capitals of Russia, and throughout their sojourn in the magnificent empire under your Majesty's enlightened and benevolent rule, all classes of your Majesty's subjects united to do honour and show kindness to the Statists of all Nations, whom your Majesty was graciously pleased to welcome as your guests.

By appointing His Imperial Highness the Grand Duke Constantine to preside over the deliberations of the Congress, your Majesty exhibited a sympathy with our pursuits which demands our most respectful recognition. Our acknowledgments are also due to His Imperial Highness, whose urbanity and condescension, coupled with his thorough appreciation of the value of statistical science and its bearings upon social and political economy, contributed largely to the success of the Congress.

The Statistical Society, of whose sentiments we are the interpreters, is not a political organisation, and discusses questions of policy and government only as matters of science. But we cannot refrain from submitting to your Majesty the impression produced on our representatives during their stay in Russia.

They saw on all sides and among all classes of your Majesty's subjects, indications of material advancement and moral progress which they believe to be chiefly due to the enlightened spirit of your Majesty's rule. It is not merely in the emancipation of the serfs that your Majesty stands pre-eminent among monarchs, although that alone would secure to your Majesty the respectful and deep-seated admiration of all Englishmen.

It was the justice and benevolence of your Majesty's Government, and the enlightened spirit of progress evident in all branches of your Majesty's administration, and the loyalty, devotion, and contentment of your Majesty's subjects generally, that most strongly impressed our representatives. In them they recognised the work of ages compressed into the years that have elapsed since your Majesty—whom God preserve—ascended the throne.

The new domestic and affectionate tie which now binds your Majesty to our beloved Sovereign and country, is but another claim to the genuine and hearty cordiality with which your Majesty is welcomed in England.

That it may prove an additional bond of union between the two great nations which have so many interests in common: that it may cement still more strongly the ancient friendship of Russia and Great Britain; and that your Imperial Majesty may long be spared to direct the destinies and minister to the happiness of so large a portion of the human race, is the earnest and devout wish of those who now presume most respectfully to address your Majesty.

(Signed) W. A. GUY, *President.*
WM. FARR, *Vice-President.**

London, 19*th May* 1874.

The following letter addressed to the President by the Russian Ambassador will show how the Address of the Society has been received by the Emperor :—

" AMBASSADE DE RUSSIE, À LONDRES.

" *Londres, le* $\frac{5}{17}$ *Juin*, 1874.

" *A Monsieur le Président et au Conseil de la Société Statistique*
" *de Londres.*

" L'adresse présentée par la Société Statistique de Londres, a " été grâcieusement accueillie par l'Empereur.

" D'ordre de Sa Majesté Impériale, l'Ambassadeur de Russie, " est chargé d'offrir aux Membres de cette Société l'expression " bienveillante des remerciments de Son Auguste Souverain.

" Il se fait un devoir empressé de s'aquitter de cet ordre et " profite de cette occasion pour présenter à Monsieur le Président et au Conseil de la Société Statistique l'assurance de sa plus haute " considération.

" BRUNNOW."

Before the close of the session a special meeting of the Council was called, at the instance of the President, to consider certain amendments which had been suggested in the Bill then before Parliament to amend the law relating to the registration of births and deaths in England. A joint deputation of the Social Science Association and the Statistical Society waited on the President of the Local Government Board on Friday, the 5th of June, to urge on him the amendments adopted by the two Societies.

The deputation was attended by Mr. G. W. Hastings, President of the Council of the Social Science Association; Dr. Guy, F.R.S., President of this Society; Dr. Farr, F.R.S.; several members of the Councils of the Statistical Society, Institute of Actuaries, and Social Science Association. Dr. Guy, in addressing Mr. Sclater Booth, insisted on the importance of the amendments suggested by the Statistical Society, which will be found among the Miscellanea in the *Journal* of the Society for June, 1874 (vol. xxxvii, part 2.)

The following list of Fellows proposed as Officers and Council of the Society for the Session 1874-75, is submitted for the consideration of the meeting.

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* In the unavoidable absence of Dr. Mouat, Foreign Secretary, the address was signed by Dr. Farr, as above noted.

Council and Officers for 1874-75.

PRESIDENT.

WILLIAM AUGUSTUS GUY, M.B., F.R.S.

COUNCIL.

The Right Hon. The Earl of Airlie, K.T.
Sir James Anderson, F.R.G.S.
General Sir George Balfour, M.P.
Henry G. Bohn, F.R.A.S., F.L.S.
Thomas Brassey, M.P.
Samuel Brown, F.I.A.
Edwin Chadwick, C.B.
Hammond Chubb, B.A.
Hyde Clarke, D.C.L.
Leonard Henry Courtney, M.A.
Francis Galton, F.R.S.
Robert Giffen.
James Thomas Hammick.
Frederick Hendriks.
James Heywood, M.A., F.R.S.
Frederick H. Janson, F.L.S.
Henry Jeula, F.R.G.S.
Francis Jourdan.
H. Reader Lack.
Professor Leone Levi, F.S.A.
William Golden Lumley, Q.C., LL.M.
R. Biddulph Martin, M.A.
Frederic John Mouat, M.D., F.R.C.S.
Robert H. Patterson.
Frederick Purdy.
Ernest Seyd.
Thomas Sopwith, M.A., F.R.S.
The Right Hon. The Earl Stanhope, F.R.S.
General Richard Strachey, R.E., F.R.S.
William Tayler, F.S.A.

TREASURER.

James Thomas Hammick.

SECRETARIES.

Frederic J. Mouat, M.D. | Robert Giffen.
H. Reader Lack.

FOREIGN SECRETARY.

Frederic J. Mouat, M.D., F.R.C.S.

The balance sheet of receipts and expenditure, and of assets and liabilities to the 31st of December, 1873, are subjoined, together with the Auditors' report for the same year.

(I.)—ABSTRACT *of* RECEIPTS *and* PAYMENTS, YEAR *ended* 31*st* DECEMBER, 1873.

RECEIPTS.				£	s.	d.
Balance in Bank, 31st December, 1872	£407	5	9			
Balance of Advertisement Cash ...	3	12	11	410	18	8
Dividends on Stock				35	9	6
Subscriptions, viz.:—						
21 Arrears	£44	2	–			
362 for 1873	760	4	–			
13 „ '74	27	6	–	831	12	–
Compositions (9)				189	–	–
Journal Sales	£166	19	–			
„ Advertisements	7	17	6	174	16	6
French Statists' Fund				17	–	–
				£1,658	16	8

PAYMENTS.				£	s.	d.
Rent				100	–	–
Salaries				207	3	4
Journal, Printing	£363	13	11			
„ Index	5	5	–			
„ Shorthand Reporting	14	14	–	383	12	11
Advertising				47	15	11
Ordinary Meeting Expenses				31	4	8
Library				17	2	11
Stationery and Sundry Printing				88	13	7
Postage				54	14	7
Fire and Light				4	2	7
Incidental Expenses				67	2	–
Annual Dinner				20	6	–
Furniture and Repairs				3	14	6
Digest of the Census				71	13	8
Purchase of £200 New 3 per Cent. Stock				185	15	–
Balance at Messrs. Drummond's	£373	5	1			
Balance of Petty Cash	–	9	5			
Balance of Advertisement Cash ...	2	–	6	375	15	–
				£1,658	16	8

(II.)—BALANCE SHEET *of* ASSETS *and* LIABILITIES *on* 31*st* DECEMBER, 1873.

LIABILITIES.	£	s.	d.	£	s.	d.
December *Journal*, Printing (say)	90	–	–			
December *Journal*, Index to	5	5	–	95	5	–
Miscellaneous (say)				40	–	–
Balance in favour of Society ...				2,507	17	1
				£2,643	2	1

ASSETS.				£	s.	d.
Cash Balance				375	15	–
Stock:—						
New 3 per Cent. Consols (£1,271 4*s.* 8*d.*)	£1,207	7	1			
3 per Cent. Consols (£328 15*s.* 4*d.*)	300	–	–	1,507	7	1
Property (Estimated Value):—						
Books in Library	£400					
Journals in Stock	200					
Furniture	100			700	–	–
Arrears recoverable (say)				60	–	–
				£2,643	2	1

"*Auditors' Report* 1873.

"STATISTICAL SOCIETY,
"12, ST. JAMES'S SQUARE, LONDON, S.W.,
"*29th January*, 1874.

"The Auditors appointed to examine the Accounts of the Society herewith

"REPORT:—

"That they have carefully compared the Entries in the Books with the several *Vouchers* for the same, from 1st January to 31st December, 1873, and find them correct, showing the *Receipts* (including a Balance of 410*l.* 18*s.* 8*d.* from 1872) to have been 1,658*l.* 16*s.* 8*d.*, and the *Payments* 1,283*l.* 1*s.* 8*d.*, leaving a Balance in favour of the Society of 375*l.* 15*s.* –*d.*

"They have also had laid before them an estimate of the *Assets* and *Liabilities* of the Society, the *former* amounting to 2,643*l.* 2*s.* 1*d.*, and the *latter* to 135*l.* 5*s.* –*d.*,—leaving a Balance in favour of the Society of 2,507*l.* 17*s.* 1*d.*

"They further find that at the end of the year 1872 the number of Fellows on the list was 454, which number was diminished in the course of the year to the extent of 34 by Deaths and Resignations, and that 110 new Members were elected; leaving on the list, on 31st December, 1873, 530 Fellows of the Society.

(Signed) "WILLIAM TAYLER,
"CORNELIUS WALFORD, } *Auditors.*"
"I. B. BROWN,

The only change in the management of the affairs of the Society during the past year has been by the appointment of an Executive Committee to conduct the ordinary business, and deal with pressing questions in the interval of meetings of the Council. This Committee consists of the President, Secretaries, and Treasurer; it meets generally once a-week, and submits its proceedings for the confirmation of the Council. It has worked well during the Session, and secures greater attention to details of management than was heretofore the practice.

One of the earliest subjects to which the attention of the Committee was directed was the proposal of the President that the Council should sanction the establishment of a Medal to be called the Howard Medal, and to be awarded annually to the author of the best essay on some subject in Social Statistics, preferring those subjects which Howard had himself illustrated by his labours and writings. The Executive Committee having reported in favour of the President's proposal to the meeting of Council held 11th December, 1873, the Council gave it their sanction, and approved the conditions suggested by the Committee. Steps were accordingly taken to make the fact of the foundation of the Medal widely known, and to announce the subject chosen for the Session 1874-75, namely: "The State of Prisons and the Condition and Treatment "of Prisoners, in the Prisons of England and Wales, during the "last half of the eighteenth century, as set forth in Howard's "'State of Prisons,' and work on 'Lazarettos.'"

Judging by the number of applicants for information, the Council have reason to expect a satisfactory competition for the Medal; and trust that justice may be done to the subject chosen.

The Council regret to have to announce that they have received notice of the termination of their tenure of their present house from the London Library. It has been found extremely difficult to procure suitable accommodation in an eligible locality on moderate terms. The attention of the Executive Committee and of the Council is, however, earnestly directed to the early provision of such accommodation, and they hope ere long to succeed in their endeavours in a manner consistent with the increasing prosperity and usefulness of the Society.

The attention of the Council is also engaged in improving the *Journal*, and in increasing the value of the Library of Reference belonging to the Society. To effect any considerable improvement in those desirable directions will need a much larger accession of members, and consequent command of funds than exists at present.

The Council venture, therefore, very earnestly to appeal to each individual Fellow to aid them in placing the Society on the broad basis contemplated by its Founders, so that it may justify its *raison d'être*, which is, "The collection, digest, and discussion of all facts "bearing on and illustrating the complex relations of modern "society in its social, economical, and political aspects."

It has not been the practice, heretofore, to notice in the Annual Report of the Council the deaths of any Members of the Society, and it is not now intended to depart from the general usage in the matter. The Council cannot, however, refrain from notifying with great regret the decease of M. Adolphe Quetelet, one of the originators of the Society, of whom it was justly said over his grave, that "as a man of science he was admired; as a political "character he was respected; in private life he was beloved."

PROCEEDINGS *of the* FORTIETH ANNIVERSARY MEETING,

DR. GUY, F.R.S., *President, in the Chair.*

THE SECRETARY read the annual report of the Council for the financial year ending 31st December, 1873, and for the sessional year ending 30th June, 1874.

The PRESIDENT, in moving the adoption of the Report, said that one of the duties which the Council had to perform prior to the meeting was to select the subject of the Howard Essay for 1875. The Council had had the matter under their serious consideration, and had selected as the subject of competition "The state of the Dwellings of the Poor in the Rural Districts of England, with special regard to the Improvements that have taken place since the middle of the eighteenth century, and their influence on the Health and Morals of their Inmates." It was felt that this would be an appropriate subject, inasmuch as John Howard himself, when at Cardington, rebuilt the entire village, and began his work about the commencement of the second half of the eighteenth century, two of his cottages bearing date 1763-64. He would now move "That the Report of the Council, the abstract of receipts and payments, the balance sheet of assets and liabilities, and the auditors' report be adopted, entered on the minutes, and printed in the *Journal.*"

Dr. FARR seconded the motion, which was unanimously agreed to.

A ballot was then taken for the election of officers of the Society.

Messrs. BOGIE and NEISON were appointed scrutineers, who reported that the names submitted by the Council had been unanimously approved.

The SECRETARY (Dr. Mouat) read the list of defaulters who, under Rule 9, had ceased to be members or fellows of the Society.

Mr. FRANCIS SAUNDERS moved "That the best thanks of the meeting be given to the retiring President, Vice-Presidents, Council, and Officers for their valuable services during the past year."

Mr. NEISON seconded the motion, which was unanimously adopted.

Dr. MOUAT moved, and Mr. James Heywood seconded a vote of thanks to the scrutineers, which was acknowledged by Mr. Neison.

Mr. SAMUEL BROWN said he had great pleasure in proposing a vote of thanks to the President, to whom they were all deeply indebted for the part he had taken in the conduct of the affairs of the Society, and for much of its present prosperity. The warmth and earnestness which he brought to bear on all the subjects undertaken by him, and the true spirit of progress that he always manifested, deserved their warmest thanks. He hoped that the success of the Society would still increase under his superintendence.

Dr. FARR, in seconding the motion, said that he could do so with propriety, having had the honour of being associated with the President and the Secretary in the Executive Committee. He was one of the oldest members of the Society, and he was glad to find that its progress during the past year had been so satisfactory, a progress which, he believed, was largely due to the efforts of the President. It was he who had started the Howard Medal, which, he believed, would have the effect of drawing public attention to the labours of the Society. They were also indebted to the President for having opened negotiations for a convenient and desirable place of meeting, in which, he hoped, they would assemble during the ensuing session. On all occasions the President had shown the deepest interest in the affairs of the Society. He (Dr. Farr) believed that the subject of statistics had not gained that attention in the country that it deserved. In Parliament, especially, there was a great want of the knowledge which the Statistical Society was intended to promote. He believed, if statesmen would devote themselves more to statistical studies, the country would be immensely benefited. He wished the President success during the ensuing year, and he was sure that all the members of the Council would be most desirous to promote any movement that he might suggest in order to further the interests of the Society.

The motion was unanimously adopted.

The PRESIDENT said he was extremely sensible of the honour which had been done him, and highly gratified to be allowed to occupy his present position another year. He was also sensible of the compliments paid him by the mover and seconder of the motion. Dr. Farr knew what the duties of the President were, he himself having known so well how to discharge them. The post was not or ought not to be an idle one. The President had to take the chair at the meetings of the Executive Committee and also at the meetings of the Council, and was called upon to perform a good deal of routine work, but, he hoped, not in the spirit of routine. With regard to the foundation of the Howard Medal, he confessed that he had looked upon that as a matter of some importance. There was no learned society that could claim to connect itself with the great name of Howard. There were philanthropic societies that had taken his name, and there were many philanthropic works in which that name was mentioned from time to time; but he believed there was no scientific society that had claimed that Howard should be, as it were, one of themselves. In the essay which he had the honour to lay before the Society last year he showed that Howard was entitled to much more consideration than he had yet received as a man of cultured intellect, and especially as a statist devoting himself in a novel and effective way to that great branch of statistical inquiry which consisted in what he might call inspection, careful inspection and truthful representation of results. He had great satisfaction, therefore, in feeling that he had been instrumental in bringing about the establishment of a medal in honour of Howard. With regard to the other topic mentioned by Dr. Farr, the provision of suitable accommodation for the Society, he had, in consequence of his connection with King's College, been so fortunate as to be able to render the Society some service. Having mentioned to the authorities of the College how desirable it would be for the Society to find accommodation somewhere within its walls, he had, quite unexpectedly, received a letter from the Principal of the College, informing him that he had been allowed by the council to reside out of town, and expressing his readiness to accept the Statistical Society as his tenant. He (the President), believing that no better or more suitable tenants could be found, had entered with pleasure on the necessary negotiations, and, though he was not prepared to state that an agreement had been signed, every thing short of that had been done, and he could not conceive of any hindrance arising to prevent the accomplishment of their wishes. He believed that in the Principal's house they would find every accommodation they needed. There would be two excellent rooms on the ground floor as offices, and accommodation would be found for the Society's library in other parts of the building. The house had the great recommendation of being situate in a very quiet locality, and it overlooked the terrace, the embankment, and the river, so that there would be a pleasant prospect for the staff of the Society and its members. His colleagues of the Executive Committee had inspected the premises, and they shared his opinion that they might deem themselves fortunate in having found such excellent accommodation. The only drawback was that they would have to give and to receive a short notice if anything occurred to put an end to their tenancy. But should this happen the Society would not be in a worse situation than it is at present, for, up to this time, and until this happy opportunity offered itself, the Executive Committee had failed in all their attempts to obtain for the Society such accommodation as it required.

Dr. FARR moved a vote of thanks to the secretaries for their eminent services, and he said he hoped that those gentlemen in their reply would refer to the prosperity of the Society during the last year. The Society had been well served in former times, but it had now the benefit of new blood. A great deal was expected of the present secretaries, and he felt sure that their expectations would not be disappointed.

Mr. JAMES HEYWOOD seconded the motion. He said that the secretaries had had a great deal of work to do, especially in connection with the *Journal*, and that their labours deserved the hearty thanks of the members.

The PRESIDENT, in putting the motion (which was carried), said he could add his testimony to the value of the services rendered by the secretaries.

Dr. MOUAT said that his work had been a labour of love. He had given as much time as he could devote to the work of the Society, and was sorry that it had not been better done, but it had been done as well as the time at his disposal permitted. He congratulated the members upon the fact that a larger share of secretarial responsibility would henceforth devolve upon those who were associated with him than upon himself. Those gentlemen were better able than himself to do justice to their office, and he believed that abundant evidence of this would be afforded in a forthcoming number of the *Journal*, chiefly edited by Mr. Giffen. With regard to the financial position of the Society, and the addition to the list of members, in both respects there was ample reason for congratulation. The Society was not one of those that recommended itself to popular acceptance, but it made slow and steady progress, which was clearly indicated by the features he had mentioned.

Mr. GIFFEN also returned thanks. He said that Dr. Mouat had taken by far the greatest part of the labour of the secretaries' office during the past session, and he had performed those duties so satisfactorily that he was entitled to the largest share of the Society's thanks. As to the future that must be left to the judgment of the time, and he would only say for himself and Mr. Lack that they would do their best to merit the same vote of thanks as had now been accorded to them.

LOCAL GOVERNMENT *among* DIFFERENT NATIONS.

By SIR CHARLES W. DILKE, BART., M.P.

[Read before the Statistical Society, 16th June, 1874.]

So much information has lately been given to the country as to the defects of county government, that there remains but little to be said upon that score. But, on the other hand, there has been perhaps too little attention paid either to the theory of the formation of local representative bodies, or to the history of the working of those which exist in other lands. As to that theory there can be, I think, no doubt that in this country the time of Parliament is taken up with a vast amount of business which ought to be entrusted to local bodies of some kind. There has been a tendency of late in England to the belief that the most scientific system of administration lay in the appointing of highly skilled paid officials for all purposes, who, although their duties may be performed in distant places, are controlled from London; and the whole of recent changes in our poor law or local government system have been changes in this direction. I believe, so far from this being the most scientific system, that, on the contrary, it would be wiser that the necessary control over the local officials of all counties should be exercised, not from London, but by the people of the locality—a sufficiently large area being taken to secure an adequately intelligent and public spirited local parliament or assembly. Not only does a consideration of the costliness and of the routine produced by centralisation lead us to this conclusion, but the experience of all other countries confirms it. Moreover, if the arguments for and against are at all in balance, it is a most powerful reason in support of the formation of local assemblies that they afford the best training that can possibly be given to the majority of the people in political knowledge. There cannot be a doubt, I think, with those who have considered the subject, that the constitution of quarter sessions is most anomalous, and that it is impossible to expect the long continuance of a system under which nominated persons (who are not nominated by selection for fitness, but it may almost be said, in most parts of England, nominated as a matter of course on the acquisition by them of certain properties) administer funds raised by taxation. It is clear, I think, that before many years have passed away, we shall substitute for those bodies elective assemblies of some kind; and it is also clear that there would in this country be no danger from the trusting the election of those local assemblies to a wide suffrage, unaccompanied by artificial safeguards, unless indeed by some system which would prevent the minority being excluded from all voice. Such a local assembly would have the inestimable advantage of a close personal connection with and interest in the affairs with which it would have to deal; and while Parliament ought to lay down the principles of administration, those bodies would be the most competent powers to deal with the working out of the principles. Upon all these points, however, we may gain the most valuable information from considering that which is done in other countries. The Cobden Club are about to collect essays from various foreign writers upon the subject, but it lies perhaps within the functions of this Society to collect and to compare the dry facts which form the bones of all these systems, leaving our members to use the facts as the basis for future argument. I have some little right to speak upon this branch of the subject, because I know France, Russia, the United States, and our own colonies of Canada, Australia, and New Zealand, as well as most Englishmen can do. Spain and Denmark I also know very well, although less well. To the systems of Germany, Italy, Holland, and Austria, I have given some little attention; and the other countries to which I shall refer I have visited, although only as a sight-seer. To begin with our nearest neighbours, I will first speak of France. In France the smallest body possessing deliberative and administrative functions is the 'Commune," or parish, which is governed by the "Conseil Com-"munal," and, for executive purposes, by the mayor and two "adjoints." The conseil communal or conseil municipal is elected, by manhood suffrage, for five years. The next largest district is the "Arrondissement," which is governed by an elective council which is quite powerless; and the largest group under the State itself is the "Département," governed by the "Conseil Général Départe-"mental." This last body elects a permanent commission, which is invested with most important functions. The elections to the "Departmental Council" are by single-member districts and by manhood suffrage. Only inhabitants of the locality, over the age of 25, can be elected. Ministers of religion and persons in the employment of the State cannot be elected. The councillors are elected for six years, and only half the body are re-elected every three years. The council meets twice a-year. The first session is for the purpose of passing the accounts and fixing its budget of taxes and expenditure for the following year, but the second lasts for about a fortnight. It elects its president, and when it is not sitting all its functions are exercised by its permanent commission. It deals with the chief roads of the country; it has a considerable amount of power over higher education; it provides and keeps up assize courts, police courts, prisons, and police stations. It has a certain amount of controlling power over the railways which pass through the department, also over canals. It has the absolute management of mad-houses. It is also consulted by the central government upon proposed new laws; and this consultative system is one which those who have seen it at work in India, where it is largely resorted to by our Government, know to possess advantages which can scarcely be over estimated.

The permanent commission elected by the council is elected for one year, and has from four to seven members. Having elected a secretary, the commission meets at least once a month. Members who are absent for two months cease to be members. The body carries out all the instructions, and has all the functions of the parent body, reporting to the next meeting of the parent body how these functions have been exercised. The "arrondissement" is chiefly a police division. The "commune," or parish, is governed in the first place by the general assembly of all the inhabitants, or open vestry. A mayor and a small council are elected from among the inhabitants. The mayor is the chief executive officer of Government in the district, and is the person who publishes all Government notices, orders, and proclamations. The chief duty of the mayor and his communal council, as a general rule, is to look after the communal or primary schools; but there are some parts of France in which the communes possess a large amount of landed property, which has come down to them from the earliest times, and in those villages the property is of course administered by this body.

I turn now to Belgium. The Belgian system is similar to that of France, with one most important difference, to which I will presently allude. The theory of the commune in Belgium, as in France, is, that the parish government rests on the basis of a common interest, produced through common residence. A domicile from the 1st of January is needed for the exercise of the parish suffrage. The parish assembly, or open vestry, elects the council, as in France, or select vestry, which varies in its numbers according to the population of the parish. The members must be 25 years of age—bankrupts are excluded—all Government functionaries are excluded—and the election is by ballot. The important difference between the Belgian communal council and the French is, that in Belgium, instead of manhood suffrage there is a property qualification for electors, viz., the payment of ten francs a year in taxes. The elections also take place only every three years in Belgium. One half of the council retire, and each member serves for six years. The executive powers of the select vestry are confided to the échevins, generally two in number, with whom is associated the burgomaster or mayor, these persons being selected by the Crown from among the members of the select vestry. They answer to the French mayor and his "adjoints."

The parish, through its council, deals with police, paving, lighting, public health, drainage, cleaning streets, clearing away the snow and other obstructions, pulling down dangerous houses, adulteration, short weights and measures, cattle plague regulations, &c.; it administers rights of common, and also protects footpaths and rights of way. Turning from the commune to the province, which answers to the French department, the electors to the provincial council of Belgium must pay twenty francs a-year in taxes. The election is, as in France, by cantons, each returning a single member. Only inhabitants of the locality can be elected. As in France, the council elects a permanent commission from its own body, and to this permanent commission or deputation permanente it deputes its executive powers. This commission meets once a-week. The council itself, as a council, really meets for a fortnight only once a-year. The duties of the council are very similar to those of the council in France. It deals with roads, with public works, with higher education, with courts of assize, with police courts, gaols, mad-houses, canals, and so forth. But there is an important difference between its permanent commission and the permanent commission of the council in France, viz., that the nominated governor of the province in Belgium, who is the representative of the king, presides over the deliberations of the permanent commission. I may add, that upon this point Belgium follows the example of Holland and Spain, and shows less trust of the free choice of the people than has been shown upon the same point by Russia herself.

I will now turn to Holland, of which I spoke just now. The Dutch province and provincial council are very similar to the Belgian province and provincial council; but while Belgium has the French commune, in Holland the district is somewhat larger than the average commune; and while in France and Belgium the theory of the law is, that the country is an aggregation of communes, and that communes are built up together to form the department and the State, in Holland the theory of the law is different, and the district is a mere division of the provinces. The Dutch district, which varies very much in size, has an elective board, and also a standing committee of the board of from two to four members. The mayor in Holland is nominated by the Crown, as is indeed now, since the last month or two, the case in France, although possibly only for a short time. The district board may make bye-laws upon almost any subject, and its standing committee of from two to four members sees that those bye-laws are observed; the district board also manages the lesser roads, the lesser canals, the lesser dykes, the fairs and markets within the districts; and through its standing committee it deals with public health, lighting and watching, fairs, pawnshops, and many other matters.

I next take Spain, which has many features of resemblance to Holland. In both Spain and Holland there is no distinction between the urban and the rural commune. All towns are communes; and when Carthagena wanted to set up for itself, the name of commune was inapplicable, inasmuch as it was a commune already; so that the name of canton was invented for the insurrection. Every province in Spain has its elective chamber, called "deputacion," which answers to the departmental council of France and to the provincial council of Holland and Belgium. Each province, as in Holland, is divided into districts, and each district has its "ayuntamiento," which answers to the Dutch district board. There is a standing committee of the deputacion of five members, just as in Holland. The parent body consists of from twenty-five to forty members. The provincial deputies must be residents, and are elected for four years, renewable by halves every two years. They are unpaid, and their attendance at the meetings is compulsory. The provincial deputacion deals with roads, canals, irrigation, charities, mad-houses, normal schools, exhibitions, universities, and so on. The standing committee, or provincial council, discusses questions from the district councils, and, if necessary, it sits as a court. It manages the conscription, and it carries on the work of the provincial assembly through that portion of the year when the assembly itself is not sitting. It also travels and visits the ayuntamientos, examines their funds and their accounts, and calls on them for necessary explanations. Coming to the sub-divisions of the provinces or districts, the Spanish district, like the Dutch, is sometimes a small commune and sometimes a great city; but it is governed on the same plan whichever it happens to be. Small or great it is a municipal district, governed by an elective ayuntamiento. The voters who elect the body are all the persons who "habitually "reside" in the district, and have their names inscribed on the roll of the commune during any portion of the year. Those who have several residences must make choice of one in particular. Two years' residence entitles a man to be put on the roll without his taking the trouble to claim it; and six months' residence is held to be habitual residence without proof. The roll of the commune indicates both ages and professions, and it forms that most valuable document, a permanent census of the country; such as I believe exists in no other part of the world, except in Ireland, and there only secretly in the hands of the Irish constabulary.

The ayuntamiento elects out of its own body a permanent committee for various purposes; it manages rights of way, the smaller roads, the police of the commune, and primary education. A written minute is kept of the proceedings, and in every division the reasons of the minority for their dissent are always given.

If we look to the neighbouring country of Portugal, we find that Portugal, like Spain, is divided into districts, which are governed upon a similar plan. Each district is divided into concelhos, which answer to the French arrondissement, or to the American township; each concelho being built up of a group of parishes, generally about twelve in number. This Portuguese system leads me, by a long geographical jump, but by an easy transition, for the resemblance is very great, to Russia, where there is also the treble system, instead of the double system which exists in France, Belgium, Holland, Italy, and Spain.

In Russia, as in Portugal, there are three administering bodies. The communal assembly is not elective, but universal. It is a public meeting of all the heads of families; that is to say, of all the married men, together with widows and orphan daughters being heiresses. The women often attend themselves, but they may, if they choose, send a representative. In Russia the commune is still, what it has ceased to be any where else in Europe, except in a small part of Switzerland—a commune in fact as well as in name; inasmuch as the land is still held in common, and temporarily allotted among the inhabitants at the village public meetings. But the communal assembly also deals with the distribution of taxation among the families—the taxes in Russia being paid not by individuals but by villages—with recruiting—with small law-suits—with police cases. Above the commune comes the district. The district assembly is composed of from twenty-seven to thirty-five members, of whom from three to five are merchants or peasants elected by the district town, and the remainder are elected—one-half by the peasants in their communes, and one-half by the nobles in a specially convoked assembly of the nobles of the district. The peasants are often in a small majority in the assembly. The district assembly controls all the lesser roads and bridges; it manages the schools; it supervises the drainage, public health, the cattle diseases, vaccination; it elects the magistrate known as the "Arbiter of the Peace," and it raises for those and other purposes taxes paid in kind. The suffrage for the election of peasant deputies is household suffrage. Women householders have a vote, and no qualification is needed for election. The district assembly elects five or six members to the provincial assembly, which is the third and greatest body. Indeed, in Russia, it is the greatest elective body in the empire, because there is no parliament. The peasants sometimes, but more rarely, have a majority in the provincial assembly. This body controls all the greater roads and bridges, and the railroads; it lays down the principles upon which public education shall be conducted, and supports and manages the normal schools; it supervises public health on a large scale, for instance, in the prevention of epidemics.

I now come to the three Northern or Scandinavian kingdoms—those of Sweden, Norway, and Denmark. In Sweden every parish, in its communal assembly or open vestry, elects a communal council of from three to eleven members, who are elected for four years. Those communal councils have the absolute charge of the schools, which in Sweden, as is well known, are excellent. Each department, county, or province, has a landsting, which answers to the departmental council of France and to the provincial councils of the other countries I have referred to. In Sweden this body consists generally of twenty members, who are elected for two years by the towns and by the greater communes. As usual, it looks after roads, bridges, public health, and so forth; but in Sweden it has one great attribute which distinguishes it, viz., that it elects the members of the House of Peers.

In Norway every parish possesses an arbitration court, of three members, elected by the ratepayers, and having power to decide all local cases of every kind, which may be referred to it by agreement of the parties. This is a provision of which the Norwegians are justly proud. There is also a committee for the management of the schools of the commune, and the provincial councils answer to the landsting of Sweden, and have similar functions, being in Norway known by the title of the "General Assembly of the Amt."

Denmark also, like Sweden, has the twofold system of the communal and the provincial assemblies, which may indeed be looked upon as the general continental form of local government—the variations in Portugal, in Russia, and in parts of Switzerland, being altogether exceptional. Of the other countries of Europe, leaving Switzerland out of the question for the moment, some possess the one and some the other of the two branches of local government which we have seen existing in the best organised communities.

In Greece, for instance, the communal council is admirably organised, but the provincial assembly is defective in its form. On the other hand, in Germany, the difference is the other way, inasmuch as it is the commune that is rudimentary, and the provincial assembly which is highly organised and powerful. In Prussia every county has an elective council, with an elective president, who has, however, to be confirmed in his functions by the king, and under this the "district," with nominated officers; under which again the "circle," with an elective government; under which again the commune.

In Austria each of the seventeen provinces has a diet. The diets are mixed bodies, but chiefly elective. They deal with local taxation, with education, charities, public works, and with the land laws. Under this are the "circle" and the arrondissement, both with elective councils.

The system which exists in Italy is a new one, and possesses no special features of interest, but resembles that of Spain and Belgium.

That of Switzerland, on the contrary, possesses almost too much interest, inasmuch as it is so thoroughly complicated and so various in different portions of the country, that it would take hours to give a good account of it. In some of the cantons there is only the cantonal council and the communal council, and nothing between the two. In other cantons other elective bodies do exist between the two councils. Some cantons are divided into districts; those districts are divided into "circles" or arrondissements, and those again into communes. As a general rule, in Switzerland, where there is an elective body between the communal council and the cantonal council, there is an officer called the chef-du-district or else a préfet d'arrondissement. In the cantons of Vaud and Neuchâtel he is appointed by the council of state, but in the other cantons he also is elected. It is, however, useless to press further the consideration of the state of things that exists in Switzerland, because the Swiss communes have generally a vast amount of landed property, which alters the whole conditions of the case, and makes it inapplicable to English difficulties.

If we cross the seas and look to America, or to the colonies of England, we find in action an elaborate system of local government, equal to any which exists in the most civilised communities of Europe. In the United States there is not only the state legislature, which, exercising its functions by the power of the American Constitution, with a sovereign authority, is of course more powerful than any body of the kind which could be created here short of the concession of Home Rule; but there is also the township under various names, an elective body, which exercises very considerable powers. Great powers are also in America deputed to the sheriff of the county, an elective officer, the American counties being smaller and far less populous than the average counties of England. But in America it is noticeable that the tendency is somewhat in the direction of electing special committees for each of the matters with which the local authorities have to deal, rather than that of concentrating all the powers in the hands of a single body in each parish. This may suit America, where almost every man is more or less competent to take part in public affairs, and more or less wishes to do so, but it would be less adapted to our convenience than would be the system either of the continental States or of our own colonies. The South American Republics follow in matters of local administration that country which is their great model in all things, viz., the United States. Brazil has a more aristocratic system, and the provincial assemblies of that country are elected for two years, the suffrage being confined to those who have 20*l.* a-year income from property of any kind.

As regards the colonies of England, the best one that we can study is the colony of Victoria, which possesses a perfect system of elective local government, considering the circumstances of the country in which that system has been brought into existence. But the Victoria system of shire councils is one which is better adapted to a sparsely populated country, than it would be to the more thickly populated counties of England. In England, it seems to me, that we have only to return to our own past; to re-invigorate our parish and county systems, to abolish, as we now safely may, the last remains of privilege, and to substitute the elective representatives of the people for the nominated representatives of the Crown.

The county court of the Saxon and early Norman days in England was a general assembly of the whole of the grown male inhabitants of the country, which decided the most important questions of every kind. In the place of that we ought now to have an elective county board, freely elected by a wide suffrage, without fear, and entrusted as freely and with as little timidity on our part, with all those multifarious powers and duties which are at present divided between the anomalous local bodies that do exist, and Parliament, the time of which is far too much occupied to properly deal with them at all. De Tocqueville has said: "Good parish and district "institutions are for liberty what primary schools are for science. "They bring it home to the people, moreover they make them used "to using it peaceably."

I believe, however, for myself, that great as would be the educational advantages of powerful elective local institutions, their scientific advantages, from an administrative point of view, would be even more considerable.

Local Taxation, 1868.

United Kingdom	25	millions to	66	millions imperial.
France	21	,,	60	,,
(includes $2\frac{1}{2}$ for education and great expenditure on Paris)				
Holland	$1\frac{3}{5}$	million to	$5\frac{1}{2}$	millions imperial.
Belgium	$1\frac{3}{5}$	,,	5	,,

Comparing the wealth and the population of these four countries—the only ones as to which we have good information—it would not seem that scientific local government, carrying out important public works, is more costly than the inefficient local government which exists in the United Kingdom.

DISCUSSION *on* SIR CHARLES DILKE'S PAPER.

MR. W. G. LUMLEY, Q.C., said that the meeting, no doubt, would agree with him, that the paper was exceedingly interesting and instructive, as a historical or statistical account of what took place in other countries. It was impossible for any one to listen to the paper without seeing that the circumstances of all the countries dealt with were so exceedingly different from those of this country, that the course which was pursued in those different countries, in constituting their local systems of government, would hardly ever be applicable to the state of our own kingdom. It appeared that matters were entrusted to those local divisions and councils varying almost in all the countries. Some of the matters were necessarily of a local character, but there were subjects that were entrusted to some of these councils, which, in this country, were considered questions of imperial and national interest. He observed that the great subject of education was entrusted to some of these councils, but he did not think there was any reason to believe that in this country the great principles of education would be entrusted to local administrative boards. Again, sometimes the jurisdiction of some of these boards in continental countries seemed necessarily to run into one another's districts. It seemed, for instance, that some of those divisions took charge of the railways. How one commune could manage a railway, part only of which was in their own district and part in districts at a great distance, seemed to involve difficulties which, to his mind, looking at the state of this country, were insuperable. Still, it might very fairly be believed that the necessities of those countries having led to that system of administration, they had been able to manage, in some way or other, the great problems which had been entrusted to them; but that we, in this country, could adopt any system which was pointed out in those foreign nations was a matter which involved a great amount of consideration, and, as far as he could see, there was little possibility of their being adopted. There was another thing which struck him, namely, that in almost all the more advanced countries these councils seemed to have a connection or a communication direct with the Government. There was a secondary officer who, for the most part, was appointed by, or held his office somehow or another communicating with, the Government. What was that but a sort of centralisation? That officer took his views and instructions from the central authority of the country, whatever it might be, and he could not see how these communal or provincial divisions could otherwise be kept so as to be bound to carry out the uniform principles of administration. In our own country, about forty or fifty years ago, all the parishes had the administration of the poor law as independent local districts. What was the result? The system of administration varied all over the country. He felt great difficulty, therefore, in finding out why each district should be prevented from adopting those practices, notions, or principles which seemed most suitable to it. The paper which had been read was exceedingly interesting, and it would be well to know whether any system other than the present could be adopted in this country, where a great difficulty existed from the multiplicity of local divisions. Every one was prepared for some amelioration, but it would be difficult to say which of the foreign systems could be advocated as the one which should be established in this country.

MR. R. DUDLEY BAXTER, M.A., said that the Society must feel obliged to Sir Charles Dilke for his having given such an interesting catalogue of all the local governments throughout the principal countries of Europe. The difficulty, as Mr. Lumley had said, was to know how, out of so many different constitutions, to pick out the one that would be most applicable to the present state of England. About one hundred or two hundred years back the system in this country resembled the system on the continent more than it did at the present time, and the reason of the present difference was principally that parts of our system got weaker and weaker and gradually fell out. For instance, the departmental council, which played so important a part abroad, existed in England in very much the same way, although not in such a highly organised form, as the county meeting presided over by the sheriff. That fell into disuse, except for the purposes of electing members of parliament, and there was substituted for it that of government by the magistracy. He thought a good deal might be learned from other countries. The departmental council was a very good and useful institution, and he should like to see in England local parliaments similar to those abroad. In constituting these he would retain the magistrates as part of the assembly, and would have an elected part as well. He thought, in that way, a much more permanent system would be obtained, which would represent the intelligence and the property of the country more nearly than in foreign countries. There would also be a great deal more independence in these assemblies, because, after all, the foreigner was right when he said the county families made the great difference between this country and other countries, that they were a sort of stand-byes against centralisation and against the power of the Crown. So they would be, in those local parliaments, a great help to the elected representatives of the people, and give a much greater permanence and power to the administration. The commune abroad corresponded to the English parish or township, which had gradually been growing weaker and weaker, by reason of the greater power and utility of the district councils. The "arrondissement" in France seemed, in its relation to the Government, like the rudimentary wings of some kinds of animals, showing they had some affinity with birds. That council existed in this country in a rudimentary shape in the hundreds, and had been revived to a very great extent in the various district boards instituted throughout the country, because it had been found that a far more intelligent deliberative assembly could be obtained out of a petty sessional division than out of a simple parish. This would be better than what Mr. Goschen proposed to do, namely, to govern through the parish, which would cause a much worse state of things than at present existed. It was very difficult to take out of a parish a sufficient number of people with sufficient intelligence to enable them to manage its affairs. It would be much better if the district system were developed as also district boards, and if they were made the unit, and combined into a local parliament. Sir Charles Dilke had not explained what he meant between a scientific and an unscientific system. Certainly the system in France was very much more orderly than in this country, but it was to be doubted whether it was more scientific. Our system, up to the present time, might be described as an anarchical system, and the sooner it was made a scientific system the better. There was an explanation to be made between the proportion of the millions in the unit and the millions of the other countries. It would be seen that in other countries local rates amounted to nearly a third of the imperial taxation. In England they amounted to about half, but the difference was accounted for by the fact that, certainly in France, and, he thought, also in Holland and Belgium, there was no poor rate. He recommended the perusal by the members of a very valuable essay (which was on the Society's shelves) on this subject, written by Mr. George Scott for the Tayler prize. He (Mr. Baxter) hoped that there would soon be a great reform in the scheme of local government in this country, and that there would be a new system of councils with the retention not only of the elective element but also of the members who were at present nominated.

Dr. FARR, F.R.S., thought that there was certainly room for amendment and reformation in this country, although, on the whole, he thought its local government could, perhaps, bear comparison with that of every other country. The old divisions of England into townships or counties, or hundreds, corresponded very nearly to what Sir Charles Dilke had said existed in other countries. The division into three orders of districts had been generally found to work satisfactorily. The members would find the present divisions of the United Kingdom in the fourth volume of the census, which was in the library of the Society. From that volume it would be found that there were divisions agreeing in population and size, and yet were not conterminous. For example, the tenancy subdivisions formed for militia purposes were districts of nearly the same magnitude as the petty session divisions, although not always corresponding to them. Then there was another set of divisions for registration purposes. All these three kinds of divisions might correspond without the slightest inconvenience, and yet they were all kept as separate divisions of the county. In order to get rid of the present anarchical system, the whole matter should be considered by a commission, who, by comparing the system of this country with that of other countries, would see whether greater simplicity could not be introduced into the local government and local taxation of England. He quite agreed in thinking that too much was attempted by parliament, and that more ought to be left to the county and to the district, but especially to the county, which had been thrown very much out of gear by the administration being left exclusively in the hands of the magistrates, who, no doubt, acted to the best of their ability, but, not being elected by the ratepayers, had not the entire confidence of the country. He believed, with Mr. Dudley Baxter, that if a certain number of elected members were made to act along with the magistrates a very valuable administrative body would be the result, and that it would relieve parliament of a great many duties which they now in vain attempted to discharge. In the late census the counties were put into eleven groups. Many of the counties were too small to overcome local influence and local prejudices; and it might be well to consider whether the counties in England and Wales, for instance, could not be put into eleven divisions, so that still more powerful bodies could be obtained than could be formed out of the single counties.

Captain Craigie thought that a reform of local taxation could not be obtained unless there was a more reformed system of local government. Much could be learned from other countries. We must, however, beware of how we disposed of a system which, perhaps, had advantages that our neighbours had not in their systems. The largest portion of the local taxation of this country was devoted to the relief of the poor; and the system of poor relief was, perhaps, totally different on the continent from what it was in England. One of the great drawbacks in the way of reorganisation would be the great difficulty—bearing in mind the heavy charge for the relief of the poor—there would be, in altering the liability of districts, consequent upon the change of the authority under which they were placed, for rates they had borne for any considerable period. There could be no doubt that what was required was local parliaments to deal with local matters which were not now adequately dealt with. He was of opinion that public bodies, as in the case of town councils, that were elected by the ratepayers, with little regard to property qualification, as a whole exhibited less ability than those authorities who had the most stake in the country. The latter exhibited more force of management, and had greater regard for real economy, and were more above suspicion, than those authorities who were more directly represented. If the local government were reformed in the way that had been indicated, the local charges would then partake more of the nature of a communal or co-operative investment than of a tax, and that being so, it should be borne in mind that those who contributed the largest portion of that tax should have a right to be represented more in proportion to the amount they contributed to the funds that were to be dispensed. If they were real investments made for the evident good of a community, or for a particular class of property, it would be necessary to bear in mind that those who made such investments should have the preponderating influence in these particular councils.

Mr. L. H. Courtney said there were three special points to which attention must be directed in considering the problem. First of all, the unity of area to be selected; next, the nature of the composition of the governing body to be put over that area; and thirdly, the amount of power to be entrusted to such governing body. It was upon the defect of the remedy that we had at common law upon the unity of area that our local government broke down. The unity of area was too small to get a sufficient number of men of public spirit and ability to be able to direct with satisfaction the affairs of the small districts, which were very apt to be overpowered by the opinion of some one person, who not unfrequently was the proprietor of the area which was the unit of government. In his review of the government of foreign countries, Sir Charles Dilke stated, what was probably known to most of the members, that the commune was, in fact, the unit of area. He wished Sir Charles Dilke had said a little more of the variation of size and the way in which that variation was modified from time to time. In a country like England, that was a subject which was more important than even on the continent, as English towns grew more rapidly, and, consequently, also the area of government was constantly changing. In France the commune was of all degrees of size, and each particular town or city was, of itself, a commune, instead of a congregation of communes, as would be the case in this country; and when a town over-ran its borders the outlying portions of the land were brought gradually within the jurisdiction and control of the communal council. As to the composition of the governing body, there would be more to instruct us in a review of our own country than of other countries, because we had some five or six different forms of composition of governing bodies for so many different purposes. For example, in the county there was a form of government by a purely nominated board, which, with all its faults, was, he thought, the most frugal administrative board that existed in the world, the board of magistrates of quarter sessions. There was also, in the poor law unions, a mixed nominated elective board. The guardians who sat *ex officio* and the elective guardians sat with different titles and worked very freely together; and the elective guardians were elected by persons enjoying plurality of votes, in respect of the amount of property for which they were rated. In the town councils we had a system of government absolutely the same as that in foreign countries. And finally, in the school boards, there was another form of composition of the governing body elected by the popular suffrage, and yet elected on a totally different principle from that of a municipal town council, and presenting many marked degrees of contrast to it. Entertaining, as he did, a very strong feeling of the desirability of mixing up persons of property and education, as well as the representatives of the community, in the local government board, he demurred to the proposal of Mr. Baxter to have nominated members, as that would excite invidious distinctions. We might conceive, in future, a board which would be constituted according to the plan of the school board. As to the amount of power to be entrusted to these boards, it was quite true that the commune of France had the administration of education, but it was of a very limited character; they were controlled by the minister of education to an extent quite unknown in this country. In France, and most of the other continental countries where important members of the board were nominated by the principal authority, there was an intense limitation of the power of the commune in relation to subjects which were put under their control. There was only in the United States, as far as he was aware, a system of local government where there was not any form of control exercised by the local authorities; but even there, there was an important degree of control, because, in most of the States, the real unit of government was the State itself, and the cities or townships, as they were called, existed generally under laws or charters granted by the State, and although the State or township exercised its functions at common law, still in New England there was a difference recognised between the judges, inasmuch as if a vote was made at some town meeting to defray some expense not recognised as being within the proper sphere of action of a town meeting, an aggrieved ratepayer could go to the court of the State and obtain an injunction to restrain that vote being put into execution. The powers of our local government boards, if sought to be introduced, should be defined with great strictness. It was a subject of great and pressing importance. We were now the most anarchical administration in the world, and, moreover, did not give that opportunity for political education, which was one of the greatest advantages to be derived from local government.

Sir Charles Dilke, in reply, said he was glad to see the character of the discussion that had arisen out of his paper, and expressed his concurrence in most of the views that had been advanced by the several speakers. He thought, however, that Mr. Lumley had exaggerated the difference between this country and some other countries that had been mentioned. He thought that in Holland and Belgium there were to be found communities which, in essentials, very much resembled the local communities of this country, and from those countries we should find much to learn. The only case which he (Sir C. Dilke) had mentioned of the management of railways by the provinces was that of Russia, but he did not hold out that case as an example. With regard to the controversy which had arisen as to the character of the district council, he expressed his concurrence with the views of Mr. Courtney, rather than with those of Mr. Baxter, upon the point upon which they differed. He certainly thought that by a system purely elective it would be possible, if the area were sufficiently large, to obtain a local representative government which would be of a responsible character, and of which the inhabitants of the country would not feel ashamed. If it were possible to do that, without regard to nominative membership, it would be most desirable that it should be done. He expressed a hope that those who dealt with the subject should err on the side of rashness rather than on the side of timidity. They should begin with elective members, because if they first got nominated members there would be an indisposition to change the system. In France, whatever might have been the character of the assembly and its disposition to change, there had never been any excess of rashness on the part of the district councils. He thought that the discussion on the paper had produced a universal agreement that the present system of local government in this country, if it was not unscientific was anarchical, and that in any reform of it we ought to look in the direction of district councils or shire boards, and that those boards should be either entirely elective, or elective as regards the great majority of their members. He could not but think that such an opinion so universally expressed on the part of the meeting was of itself sure testimony that some change would be brought about before long.

The CO-OPERATIVE LAND MOVEMENT.

By E. W. BRABROOK, ESQ., F.S.A., M.R.S.L., &c.

[Read before the Statistical Society, 16th June, 1874.]

1. BY the 30 and 31 Vict., cap. 117, sec. 4, it is provided that an industrial and provident society registered under that Act shall have "power to purchase, erect, and sell, and convey, or to hold "lands and buildings."

2. Under this section, it was thought by societies that they were authorised to frame rules by which they might carry on the business of benefit building societies; but, upon such rules being submitted to the Registrar of Friendly Societies, he declined to certify them on the ground that the clause quoted "merely defines the rights of "the society as a corporate body, and relates to the land and "buildings required for the legitimate purposes of the labour, trade, "or handicraft it is established to carry on."

3. The 34 and 35 Vict., cap. 80, was passed to remove the doubt raised by the decision of the Registrar, and to authorise a society to make rules providing for erection of houses, cottages, and other buildings, and for making advances on security of real and personal property.

4. By sec. 5 of the same Act, it was provided that the buying and selling of land should be deemed to be a trade within the meaning of the Industrial and Provident Societies Act, 1862; and thus the carrying on the trade of buying and selling land became a purpose for which (either alone or together, with any other labour, trade, or handicraft) a society might be registered under the Industrial and Provident Societies Acts.

5. The following Societies have been registered for the purpose solely of buying and selling land, under the powers of this Act:—

	Number.	Date.	Name of Society.
		1872.	
1	1,434	16th Jan.	Bolton Industrial and Provident Land and Building Society Limited, 24, Chancery Lane, Bolton
2	1,440	14th Feb.	Phœnix Industrial and Provident Land and Building Society Limited, 24, Chancery Lane, Bolton
3	1,449	25th Mar.	Union Land and Building Society Limited, 8, Cherryton Street, Chorlton-on-Medlock, Manchester

	Number.	Date.	Name of Society.
		1872.	
4	1,450	26th Mar.	Tideswell Co-operative Building and Land Society Limited, Tideswell
5	1,456	15th April	Knutsford Building and Land Society Limited, King Street, Knutsford
6	1,458	26th "	Mutual Industrial and Provident Land and Building Society Limited, Union Street, Tonge
7	1,461	26th "	Barrow Co-operative Building and Land Society Limited, Barrow
8	1,469	18th May	Lincoln Land and Building Society Limited, 1¼, Waterside South, Lincoln
9	1,471	18th "	Royal Albert Co-operative Building and Land Society Limited, Town Hall Buildings, Cross Street, Manchester
10	1,472	18th "	Hindpool Co-operative Land and Building Society Limited, 286, Duke Street, Barrow-in-Furness
11	1,492	5th July	Blackley and Harpenhey Co-operative Land and Building Society Limited, Market Street, Blackley
12	1,497	18th "	North Craven Industrial and Provident Land and Building Society Limited, Long Preston
13	1,498	31st "	Bishop Auckland Co-operative Building and Land Society Limited, 56, North Bondgate, Bishop Auckland
14	1,499	5th Aug.	Coventry Industrial and Provident Land and Building Society Limited, 45, Bishop Street, Coventry
15	1,501	7th "	Oldham Industrial and Provident Land and Building Society Limited, 3, Clegg Street, Oldham
16	1,503	12th "	Wombwell Co-operative Land and Building Society Limited, George Street, Wombwell. (This Society has since been wound-up)
17	1,505	12th "	Barnsley Co-operative Land Society Limited, Commerce Buildings, Barnsley
18	1,509	29th "	Middleton and Tonge Co-operative Land and Building Society Limited, Long Street, Middleton
19	1,521	10th Oct.	Bee Co-operative Building and Land Society Limited, 25, Norfolk Street, Southsea
		1873.	
20	1,595	29th Mar.	West Leicester Industrial and Provident Freehold Allotment Society Limited, St. Nicholas, Leicester
21	1,609	30th April	Northern Industrial Land and Building Society Limited, 4, Royal Arcade, Newcastle-on-Tyne
22	1,616	13th May	Great Grimsby Industrial Land Society Limited, West Street, Mary's Gate, Great Grimsby
23	1,623	31st "	Middleton and Tonge Liberal Club Land and Building Society Limited, Manchester Road, Middleton
24	1,652	4th July	St. Peter's Co-operative Land and Building Society Limited, 121, Norfolk Street, Sheffield

	Number.	Date.	Name of Society.
		1873.	
25	1,663	14th July	Anchor Industrial and Provident Land and Building Society Limited, 24, Chancery Lane, Bolton
26	1,670	21st "	Great Grimsby Yarborough Industrial Land Society Limited, Brewery Street, Great Grimsby
27	1,679	30th "	Arnold Land and Building Society Limited, British Schoolroom, Arnold
28	1,682	11th Aug.	Sawley Industrial and Provident Land Society Limited, Sawley
29	1,689	29th "	Excelsior Industrial and Provident Land and Building Society Limited, 36, Church Street, Bolton
30	1,693	4th Sept.	Clee Excelsior Building Society Limited, 156, Cleethorpe Road, Great Grimsby
31	1,696	15th "	Newington Industrial and Provident Land Society Limited, 24, Parliament Street, Hull
32	1,714	4th Nov.	Worksop and District Industrial and Provident Land and Building Society Limited, Corn Exchange, Worksop
33	1,717	18th "	Clee Alliance Industrial and Provident Land Society Limited, West Street, Mary's Gate, Great Grimsby

6. It will be seen that of these thirty-three societies, fourteen are in the county of Lancaster, six in that of York, three in Lincolnshire, two each in Derbyshire and Notts, and the remainder one each in the counties of Chester, Durham, Hants, Leicester, Northumberland, and Warwick.

7. These societies being all of recent formation, no returns are yet available of the extent of their business, except in the case of the Mutual Society at Tonge, which is included in the subjoined return. Some of them are probably modifications of, or auxiliaries to, existing benefit building societies; others, it seems likely, have been started as mere experiments.

8. The present statement concerns only such societies as are registered for the purpose of buying and selling land under the Industrial and Provident Societies Acts. Other societies having similar objects have been registered under the Companies Acts; for example, the Oddfellows' Co-operative Building and Investment Company, Limited, rules for which have been prepared by Dr. Farr, and which has built and bought 81 houses, exceeding in value 14,000*l*. Societies so registered, however, are not now under consideration.

The extent of the movement among the ordinary co-operative societies, which have added to their usual distributive or productive business that of buying and selling land, appears from the following particulars :—

County and Name of Society.	Date of Establishment.	Number of Members.	Share Capital.	Loan Capital.	Sales of Goods during the Year.	Assets.	Value of Buildings, Fixtures, and Land Employed for Trade Purposes.	Value of Buildings and Land Purchased as an Investment or to Sell again under the Act of 1871.
CHESTER.			£	£	£	£	£	£
Dukinfield Industrial	1857	284	1,084	211	3,526	1,886	662	500
Hollingsworth Industrial	'60	300	2,909	—	7,739	3,328	607	624
Stockport Industrial	'60	1,205	12,788	—	38,130	13,813	5,000	1,000
CORNWALL.								
St. Cleer Co-operative	1867	204	584	—	4,486	713	214	201
CUMBERLAND.								
Aspatria Agricultural	1870	120	814	—	9,418	1,159	235	200
Equitable Industrial, Penrith	'65	172	638	—	2,647	721	56	40
Workington District Industrial	'65	285	2,397	—	6,457	2,397	181	198
DERBY.								
Sun Co-operative, Belper	1868	158	848	165	2,311	1,113	349	312
Industrial and Provident, Crich	'62	93	329	491	3,275	1,146	26	300
Derby Co-operative	'50	1,750	12,397	—	42,556	14,453	7,362	500
Lea and Holloway Industrial	'60	230	1,499	831	5,471	2,678	573	232
DURHAM.								
Consett Industrial	1863	900	9,443	700	38,625	10,637	1,640	840
Durham Equitable Industrial	'61	1,354	5,520	—	35,577	6,604	1,474	2,000
Haswell Colliery Co-operative	'66	559	2,475	—	20,114	3,203	936	667
Newbottle, Philadelphia, and Houghton-le-Spring District Co-operative	'68	675	3,310	578	25,200	4,854	3,100	2,500
Good Design Co-operative, South Shields	'61	746	1,401	849	24,855	3,602	1,555	1,333
Stockton Co-operative	'66	1,306	7,396	—	36,105	9,400	3,000	500
ESSEX.								
Halsted Industrial	1860	166	851	500	3,107	1,568	737	358
LANCASTER.								
Accrington and Church Industrial	1860	2,882	41,253	—	128,303	44,879	7,514	5,611
Bacup Co-operative	'47	2,457	44,859	3,316	109,842	53,446	12,830	9,268
Bagslate Industrial	'56	184	3,229	327	4,858	3,772	1,649	1,633
Blackburn ,,	'60	1,077	7,327	—	29,251	8,157	1,419	1,142
Blakey Moor Co-operative	'61	910	3,957	749	26,393	6,201	2,642	170
Blackley Co-operative	'61	880	7,141	—	24,650	8,752	2,734	600
Great and Little Bolton Equitable Industrial	'59	2,566	40,745	—	54,800	42,512	9,932	8,464
Brickfield Equitable Friends	'49	444	7,748	—	13,619	8,126	1,464	1,984
Brierfield Co-operative	'66	205	1,745	—	5,891	1,971	28	433

County and Name of Society.	Date of Establishment.	Number of Members.	Share Capital.	Loan Capital.	Sales of Goods during the Year.	Assets.	Value of Buildings, Fixtures, and Land Employed for Trade Purposes.	Value of Buildings and Land Purchased as an Investment or to Sell again under the Act of 1871.
Lancaster—*contd.*			£	£	£	£	£	£
Bury District Co-operative	1856	6,460	86,946	—	193,952	95,421	14,963	7,869
Chorley Pilot Industrial	'60	716	9,144	—	22,126	9,836	4,085	1,747
Clitheroe Equitable Co-operative	'61	562	6,423	—	18,724	7,009	2,372	598
Caul Terrace Industrial, Cloughfield	'51	539	11,294	517	17,078	12,757	2,209	2,741
Guide Industrial, Lower Darwen	'70	62	566	—	2,615	560	170	145
Industrial Co-operative, Over Darwen	'60	2,100	38,652	1,018	81,292	42,664	13,249	594
Droylsden Industrial............	'61	575	2,965	—	16,470	3,889	231	506
Eagley Bridge Co-operative	'59	236	3,092	—	8,240	3,100	305	727
Edenfield Industrial	'59	168	2,428	2,163	4,851	4,796	1,078	1,200
Edgworth "	'60	170	2,437	297	5,334	3,031	450	741
Failsworth "	'59	1,975	19,558	—	49,258	21,163	2,748	8,407
Firgrove Co-operative	'53	147	3,225	130	5,133	3,553	252	1,005
Haslingden Industrial	'50	941	15,472	2,010	23,002	18,670	3,791	3,681
Helmshore Co-operative	'61	242	2,961	1,665	7,162	5,167	682	1,554
Heywood Industrial	'50	1,145	22,933	—	44,203	22,933	4,946	2,485
Lancaster and Skerton Equitable	'60	1,915	16,468	—	46,455	16,994	6,423	295
Lanebottom Industrial	'60	104	1,561	—	4,559	1,827	25	814
Littleborough Co-operative	'51	960	20,227	7,138	34,396	29,583	3,774	9,302
Love Clough Industrial........	'60	201	2,708	—	8,102	3,120	462	696
Lowton Common Co-operative	'47	41	1,292	—	1,763	1,449	150	650
North of England Printing, Manchester	'69	361	8,228	10,251	10,599	22,756	12,210	1,605
Milnrow Equitable Pioneers	'50	951	17,194	—	43,175	18,899	2,250	1,683
Moorside Provident	'56	149	2,139	—	5,307	2,532	300	1,300
Mossley Industrial................	'56	1,179	21,831	104	50,139	23,232	4,731	1,382
Oldham "	'50	4,099	73,214	2,802	187,169	84,533	7,412	13,568
" Equitable	'50	2,249	65,243	—	94,070	68,546	6,970	4,572
Prestwich Co-operative.......	'61	1,218	15,744	15	35,459	17,338	5,445	4,795
Radcliffe and Pilkington Co-operative	'60	1,764	20,782	—	61,864	23,084	3,714	6,293
Ramsbottom Industrial........	'58	2,000	39,556	3,918	65,560	46,812	2,998	10,308
Rawtenstall "	'56	1,258	22,235	2,406	35,020	27,371	7,641	3,684
Rhodes Industrial	'61	471	6,402	—	17,880	6,909	730	299
Rochdale Equitable Pioneers	'44	6,444	134,467	10,743	267,572	154,845	21,695	20,802
Worsley Roe Green Industrial	'58	124	998	—	5,266	1,477	259	330
Stackstead Industrial	'50	1,060	20,658	1,149	33,516	24,142	3,143	515
Steps Industrial....................	'50	342	5,298	—	10,695	5,859	1,083	1,430
Equitable Progressionist, Todmorden	'51	680	10,985	—	29,049	13,755	2,349	2,351
Mutual Industrial and Provident *Land and Building*, Tonge............	'71	15	176	1,339	—	1,736	—	1,701

County and Name of Society.	Date of Establishment.	Number of Members.	Share Capital.	Loan Capital.	Sales of Goods during the Year.	Assets.	Value of Buildings, Fixtures, and Land Employed for Trade Purposes.	Value of Buildings and Land Purchased as an Investment or to Sell again under the Act of 1871.
LANCASTER—*contd.*			£	£	£	£	£	£
Tottington Industrial	1861	649	8,922	—	20,218	9,910	192	3,658
Wardle Co-operative............	'60	326	5,159	—	15,104	5,791	292	2,040
Waterfoot ,, ...	'60	620	10,331	—	18,207	11,329	900	1,723
Waterloo ,, ...	'62	355	4,444	—	13,792	4,928	760	777
Westhoughton Co-operative	'58	431	4,528	—	13,842	4,638	524	1,695
Wheeton Prospect Industrial	'66	80	895	—	1,936	989	100	492
LEICESTER.								
Mountsorrell Industrial	1861	78	652	42	430	1,030	158	1,000
MIDDLESEX.								
Civil Service Supply Association..........................	1865	4,235	1,921	—	712,399	117,950	6,313	3,142
NORTHAMPTON.								
Brafield Industrial	1859	159	1,028	350	4,092	1,523	1,096	848
Hackleton Progressionist	'60	118	275	—	2,639	446	10	155
Harpole Industrial	'63	196	845	387	5,409	1,540	405	255
Kettering ,, ...	'65	219	486	405	3,278	1,105	430	30
Moulton ,, ...	'61	99	281	129	2,095	448	20	247
NORTHUMBERLAND.								
Backworth Co-operative	1864	330	2,706	—	15,329	3,227	458	262
Bedlington Equitable	'61	452	3,091	567	15,697	5,042	2,226	1,891
Wallsend Industrial	'62	920	6,748	—	30,460	9,032	39	3,617
NOTTINGHAM.								
Hucknall Torkard Industrial	1864	502	1,298	—	14,184	1,884	110	119
SALOP.								
Bridgnorth Gardeners and Farm Labourers............	1863	9	50	—	—	155	—	150
Ironbridge and Coalbrookdale Industrial	'62	219	1,270	—	5,516	1,371	542	500
SUFFOLK.								
Bury St. Edmunds Industrial	1864	103	369	445	2,186	1,076	462	440
SURREY.								
Reigate Industrial	1863	149	490	972	2,875	1,782	1,093	244

County and Name of Society.	Date of Establishment.	Number of Members.	Share Capital.	Loan Capital.	Sales of Goods during the Year.	Assets.	Value of Buildings, Fixtures, and Land Employed for Trade Purposes.	Value of Buildings and Land Purchased as an Investment or to Sell again under the Act of 1871.
WARWICK.			£	£	£	£	£	£
Alderman's Green Hope Industrial, Foleshill	1868	109	737	150	2,298	1,024	360	110
Harbury Industrial	'65	149	1,125	—	4,527	1,337	434	417
WESTMORELAND.								
Kirkly Stephen Co-operative	1867	186	357	600	2,465	1,169	373	400
WILTS.								
Trowbridge Co-operative	1861	509	4,143	—	10,958	4,644	1,639	1,440
YORK.								
Barkisland Industrial	1864	101	1,799	—	3,268	1,991	232	196
Batley Carr Equitable	'57	1,715	13,632	—	53,872	15,923	4,722	1,800
Bingley Industrial	'50	1,010	8,359	—	40,916	10,072	5,314	1,000
Bradford Provident	'60	3,000	26,935	5,935	86,100	37,558	13,380	3,660
Clayton Co-operative...........	'58	323	609	1,892	8,509	2,930	675	578
Cleckheaton Self Help	'61	712	11,519	—	22,100	12,765	3,752	2,952
Cononley Industrial	'69	166	981	130	3,201	1,276	400	238
Cross Hills Co-operative	'68	75	375	20	2,164	479	—	350
Doncaster Mutual	'68	790	1,316	465	12,696	2,498	997	796
Eccleshill Co-operative	'60	334	2,001	790	4,153	4,082	1,010	1,180
Gomersal Industrial	'68	166	1,708	18	4,573	2,241	700	660
Greenside Co-operation........	'60	59	995	100	2,534	1,363	497	441
Halifax Industrial................	'50	7,400	171,394	—	235,730	188,658	31,985	7,000
Haworth ,, ...	'61	513	4,223	102	15,622	5,425	1,656	150
Hebden Bridge Co-operative	'48	1,079	12,528	4,721	36,028	19,684	6,128	600
Heckmondwicke Industrial	'60	3,069	44,776	279	109,465	51,087	15,025	2,695
Hill House Perseverance	'60	443	3,854	—	19,101	5,143	1,000	600
Hull Anti-Mill	1795	4,336	5,691	—	57,823	8,750	3,909	165
Keighley Industrial	1860	650	6,148	809	24,114	8,098	2,752	699
Midgley Co-operative	'61	357	4,088	459	12,699	5,294	1,055	1,461
Mytholmroyd Industrial	'61	442	6,105	150	11,779	7,363	1,704	1,675
Netherton Industrial............	'40	210	2,527	50	7,854	3,160	533	548
New Road Side Equitable....	'62	210	1,976	196	6,120	2,537	503	729
Mirfield Self Help, Ravensthorpe	'62	521	5,390	—	15,907	6,605	1,300	2,300
Saltaire Industrial................	'64	436	373	238	1,868	799	150	357
Shelley ,, ...	'61	93	547	—	3,515	875	74	17
Sowerby Bridge Industrial	'60	2,675	23,803	—	67,686	29,827	4,434	1,805
Todmorden Industrial	'46	1,682	23,965	—	55,419	25,136	5,567	4,370
Wakefield ,, ...	'67	399	3,161	—	9,047	4,046	1,355	1,137
GLAMORGAN.								
Dowlais Workmen's	1867	350	2,233	—	16,500	2,558	439	590
Cwmbach Industrial	'59	505	6,018	—	25,062	7,760	760	202
Aberdare Co-operative	'69	240	1,830	—	8,271	2,175	470	1,000

9. The following is a summary of the foregoing return:—

County.	Number of Societies Dealing in Land.	Aggregate Number of their Members.	Total Share Capitals.	Total Loan Capitals.	Total Annual Sales of Goods.
			£	£	£
Lancaster	52	57,889	927,284	51,857	1,917,761
York	29	32,966	400,778	16,354	932,113
All other counties in England and Wales	39	20,043	106,336	7,922	1,186,269
	120	110,898	1,434,398	76,133	4,036,143

County.	Total Assets.	Value of Buildings, Fixtures, and Land Employed for Trade Purposes.	Value of Buildings and Land Purchased as an Investment or to Sell again, under the Act of 1871.	Percentage of Total Assets.
	£	£	£	
Lancaster	1,066,749	188,275	162,265	15¼
York	465,665	110,799	40,159	8⅔
All other counties in England and Wales	260,553	45,344	29,364	11¼
	1,792,967	344,418	231,788	13

10. These particulars are taken from the returns to the Registrar of Friendly Societies for the year ending 31st December, 1872. Every Society was asked the two following questions:—

> "What is the value of the buildings, fixtures, and land "employed for the trade purposes of the society?"
>
> "What is the value of the buildings and land purchased as an "investment, or to sell again, under the Act of 1871?"

The answer to these questions are not included in the return which has been ordered by Parliament, and since published; and it occurred to me, therefore, that a statement of its results would not be without interest. Inspection of the foregoing details will show, however, that many societies have misunderstood the purport of the questions, and that some are included in the foregoing list which have not in fact entered upon the trade of the buying and selling of land. Notable among these is the Civil Service Supply Association, which appears among these societies, but is clearly not of them.

11. All necessary allowances being made, it is a fact not unworthy of note, that so large a sum as 200,000*l.* has been employed by these societies of working men in the purchase of land as an investment, that is, in excess of the actual requirements for carrying on their

trade; and that the larger portion of this has been applied to the providing of cottage residences for the members themselves.

12. It is also noteworthy that in the societies carrying on this trade (themselves less one in eight of the societies in existence), only 15 per cent. of their accumulated assets has yet been employed in this manner.

13. The movement, it will be seen, is, beyond comparison, strongest in the counties of Lancashire and Yorkshire.

14. In these counties, we find the Rochdale Pioneers, just as they were foremost in the establishment of the present form of English co-operative society, so taking the lead in this movement, having invested 20,802*l.* in purchase of land and buildings, in addition to the 21,995*l.* required for the purposes of their trade. Next, is the Oldham Society, which has invested 13,568*l.* in this manner; the Littleborough 9,302*l.*; the Bacup 9,268*l.*; the Bolton 8,464*l.*; the Failsworth 8,407*l.*; and the Bury 7,569*l.*; all in Lancashire. After these comes the Halifax Society, in Yorkshire, with 7,000*l.*; and the rest, in comparison with these, are nowhere.

15. The returns for the year 1873 are not complete, but of those already received eighteen societies return the same sums as value of buildings and land purchased under the Act of 1871 that are given in the above return, while sixty-six societies return sums exceeding those returned by them in 1872 to the extent of 17,746*l.* In addition, twenty-seven societies, not included in the foregoing list (viz., nine in Lancashire, seven in Yorkshire, and eight in other counties), appear to have joined the movement during the year 1873 by investing in this manner 16,922*l.* of their funds, which includes 50*l.* paid by one society as deposit on buildings of the value of 1,200*l.*; while, of the societies mentioned in Art. 5, No. 8, the Lincoln Land and Building Society, returns its purchases at 4,867*l.* The aggregate addition in 1873 to the 231,788*l.* above set forth, as invested upon 31st December, 1872, appears to be 39,535*l.*, making a total of 271,323*l.*

16. It may be convenient to mention here that on 31st December, 1872 (the figures for 1873 not being yet available), the number of members in co-operative societies was—

In Lancashire	98,590
„ Yorkshire	85,266
„ other counties	117,301

figures which point out emphatically the prevalence of the present movement in the Lancashire societies.

17. The gross value of buildings, fixtures, and land belonging to co-operative societies was—

	£
In Lancashire	588,462
,, Yorkshire	332,308
,, other counties	230,829

The total sales of the co-operative societies were 11,397,225*l.*

18. I am glad to have the opportunity of presenting to the Society the earliest obtainable authentic information with regard to this new phase of the organisation of providence. When we see to what large results the benefit building societies, which were little clubs in 1836, when an Act was passed to encourage them, have attained, and how literally incalculable has been the public service they have rendered, we shall hardly be surprised if, in a few years, these co-operative societies should carry on their trade of buying and selling land to an extent that may have a marked influence on the material comfort, the self-respect, and the consequent social value of their members.

DISCUSSION *on* MR. BRABROOK'S PAPER.

MR. CORNELIUS WALFORD said he assumed the object of Mr. Brabrook, in bringing the subject before the Society, was not simply to give interesting and useful statistics, but that he had probably in view the fresh legislation which was to be brought to bear upon these societies. Assuming that to be so, he would take the opportunity of saying, that one thing which was most needed, and which seemed to be overlooked, was, that every society, for whatever object it might come within the scope of friendly or co-operative or land societies, should, in its constitution, embody in the first page a memorandum of association, much after the same character as that of all societies enrolled under the Societies' Act, so that every person could see the precise object the society had in view. On the corresponding page should be a table setting distinctly forth what payments were to be made, as, for example, in building societies, where a single share was advanced and paid by a premium extending over a period of years, it should be a distinctive statement of the amount to be advanced subject to any deduction, and a statement of the payments in return. Any person taking up a book like that would be able to see at once the nature of the society.

Mr. F. HENDRIKS said he observed from one of the tables that the sale of land in one year had amounted to over 4,000,000*l*., and, comparing it with the number of members (110,898), it would seem as if 36*l*. or 37*l*. worth of land on the average had been purchased by each member. He would ask Mr. Brabrook if he had any statistics of the actual sales, or whether, in his office of registrar, he had acquired any information as to the average of land sold in the year.

Mr. VANSITTART NEALE explained that the sales referred to by Mr. Hendriks were not entirely sales of land, but were the returns of societies which supplied their members with groceries and provisions. The investments in land were to be represented by tens or hundreds of thousands, and not by millions.

Mr. HENDRIKS said that, in reading the paper without some note to that effect, it would lead to a false impression.

Mr. BRABROOK, in reply, said he was obliged to Mr. Walford for his remarks. These societies did not originally start with the object of engaging in trade, but solely for convivial purposes, and afterwards they launched out into business. Every one would agree with Mr. Walford, that these societies should distinctly state their object and purposes. He (Mr. Brabrook) had no information as to the number of sales in land effected every year, nor did he know the extent of the average. He had no doubt that Mr. Neale, being connected with the co-operative movement, might be able to obtain that information.

Mr. V. NEALE said that, at present, the sales in land were almost entirely confined to the members of the societies, whose sole object was to buy land for the purpose of selling it to their own members.

ADDRESS *of the* PRESIDENT *of* SECTION F (ECONOMIC SCIENCE *and* STATISTICS *of the* BRITISH ASSOCIATION *for the* ADVANCEMENT *of* SCIENCE, *at the* FORTY-FOURTH MEETING, *which was held at* BELFAST, *August*, 1874. *By the* RIGHT HONOURABLE LORD O'HAGAN.

SINCE I accepted the invitation of the Council of the British Association to meet you here, I have glanced through the addresses of some of the gentlemen who have, heretofore, enjoyed a similar distinction; and I find, in most of them, an authoritative statement that brevity is held a virtue in the Presidents of its Sections. I appreciate the reason of the rule: it has my full approval; and I shall endeavour to act upon it, so as to avoid delay of your discussions, or anticipation of their details, or prejudgment of any questions which may probably come before you.

I am glad to have the honour of presiding over such an assembly in a town to which I am attached, not merely as the place of my birth, but, far more, by life-long associations of interest, duty, and affection. I rejoice that it is again distinguished by the presence of so many men illustrious in every walk of science, who come to take counsel together, as to the conquests of human thought and the extension of the bounds of knowledge; and I may be permitted to say, that Belfast, in its industrial eminence, its honourable traditions, and its intellectual progress, is not unworthy to receive them.

As to its varied industries, they may more fitly be considered by other Sections of the Association, in their connection with those branches of science, such as chemistry, natural philosophy, or mechanics, with which they have more direct concern. But the statistician and economist, without trespassing on the province of any of those branches, has relations with them all, aiming to test the value of their results, and make them practically conducive to the general well-being. Thus, when you note the wonderful progress of this community—increasing in population from 37,000 in 1821 to 174,000 in 1871, and possessing multitudes of palatial manufactories where, within my own memory, there was exactly one,—you may be led, legitimately, to consider its causes, its consequences, and the means of its extension. You may find food for profitable speculation in examining the industrial efforts which continue that progress, without pause or faltering; and perhaps, amongst them, not the least remarkable is that which has established great iron foundries, winning for their work the highest honours in the industrial competitions which have occupied the capitals of Europe, from time to time, for a quarter of a century, and commanding orders from the most distant regions of the globe. Or you may examine, with equal interest, shipbuilding establishments which employ skilled artisans in thousands, send out scores of great vessels to traverse the Mediterranean, and bridge over the Atlantic; and have cultivated the special manufacture of long iron-decked ocean steamers, from the year 1861, when it was first begun, until they have produced the gigantic "Britannia" and "Germania," measured at 5,000 tons—not surpassed, if they have been equalled, in any country,—and exhibiting improvements which are largely imitated in all ocean-going ships throughout the world. But, apart from its general industries, Belfast has peculiar claims on the goodwill of this branch of the British Association.

It is nearly a quarter of a century since, at a former meeting of that Association, in this town, the place which I now fill was more fitly occupied by the late Archbishop Whately, whose services to economic science as well in his own masterly publications as in the liberal energy with which he encouraged the study of it in Ireland, I need not eulogise before this assembly. On that occasion, there were not wanting able and instructed men to show that its principles had found acceptance here. Such men had been, already, active in the prosecution of those special inquiries, which, in this Section, it will be our business to pursue. In distant days, when Belfast was poor in material wealth and very limited in population, they had formed a speculative and literary society which did excellent work. They had also societies for the culture of natural science, and others which were useful in training young people for the encounters of public and professional life. And these, with great schools, which were the creation of the spirit and enterprise of private persons, tended to the remarkable advancement of individuals and assisted in laying the foundations of that great prosperity,—the unaided growth of self-reliance and self-assertion,—which has so distinguished this community among the cities of the empire.

It was not strange that, with such antecedents, Belfast should have early moved in the new path of statistical inquiry, and, accordingly, long before the meeting to which I have alluded, it had established a Social Inquiry Society for the consideration of "Statistics, Political Economy, and Jurisprudence," which, in some particulars, remarkably anticipated the Social Science Association; and was, whilst it existed, very useful and efficient. And thus it came to pass, that not the least distinguished of those who, in 1852, discussed the subjects peculiar to this Section, in able papers, were inhabitants of Belfast, some still living, and some departed, who well maintained the intellectual reputation of their town. Subsequently, the Social Inquiry Society merged in the larger combination represented by the Statistical and Social Inquiry Society of Ireland, which has laboured, and continues to labour, in the metropolis, with great and increasing success. It has dealt, in its published transactions, with almost every important economic question of the time: and has acted, beneficially, by suggestion and argument, on the Irish legislation of later days.

It has operated, also, in spreading economic knowledge through the organisation of the Barrington Lectureships on Political Economy, which were founded by the munificence of a citizen of Dublin, and through which competent teachers afford the opportunity of instruction in the principles of the science, to the various towns of Ireland. But, although the capital of the Ulster province has thus allowed its local society to be absorbed by one which is national, the spirit which originated both continues to prevail in Belfast; and it will gratify the members of this Section to learn, that, in the month of January last, a committee was formed in it, to establish classes for the systematic teaching of political economy,—chiefly to young men engaged in mercantile pursuits. That committee is composed of the chief magistrate of the town—to whose intelligence, energy, and affluent liberality, I am not surprised to learn, the British Association is largely indebted—many of its leading merchants and professional men, and several eminent professors of the Queen's College. They were fortunate in obtaining the services of a highly informed economist; and the experiment has, so far, proved very satisfactory. The number of students on the roll has been fifty-five, three of them alumni of the Queen's College,—seven, apprentices of solicitors; and forty-five, engaged in commercial business. The average of attendance on the classes has been from forty to fifty. The committee may well be congratulated on the result of their novel and excellent effort, and the probable influence, in other communities, of the example they have given. Already, it has been imitated in Dublin. A class of young mercantile men has been formed in the metropolis for a similar purpose; and there is no reason why others should not compete with it there, and in the provincial towns.

In connection with this matter, I may mention, that, very recently, a considerable portion of the Barrington Fund has been devoted to the instruction, in political economy, of schoolmasters, who are examined in its principles under the direction of the Barrington Lecture Committee of the Statistical Society; and, already, at an examination held on the 12th of May last, thirteen of them have obtained distinctions and certificates. The importance of such a movement, I need not dwell upon. It was anticipated by Archbishop Whately in the preparation of his "Easy Lessons on Money

" Matters" and other books; and, I find that the Labour and Capital Committee of the Social Science Association have endeavoured to induce the Educational Committee of the Privy Council in England to promote the teaching of economics in schools under its inspection; and have urged the importance of such teaching on the Lord President, for reasons, which, in the painful circumstances existing around us, may, not unprofitably, be repeated here. They declared their strong conviction, " that the hostility between labour and capital, " arising from an erroneous belief that the interests of workpeople " and their employers, and of tenants and landlords, are opposed to " each other, a belief leading, in manufactures, to attempts to impose " harrowing restrictions regarding rates of wages, hours of labour, " piece work, number of apprentices, and the use of machinery; " and, in agriculture, to attempts to dictate the amount of rent to be " exacted, and the selection of tenants; and leading, in its further " stages, to strikes, lock-outs, rattenings, and threats of personal " violence, and ultimately, in many cases to murder itself—might have " been mitigated, and in great measure prevented, had the people of " this country in their youth, and before the mind could be warped, " been instructed in the elements of economic science." And, on this and other grounds, they prayed that no more time should be lost in taking measures for gradually introducing this knowledge, as a regular branch of education, into all schools to which the State gives pecuniary aid. Their demand was not fully conceded; but a beginning has been made in England as in Ireland, and the study has been introduced in some large schools, under efficient inspection. Individuals have made the same experiment in London and Glasgow—eminently, Mr. Ellis and Mr. M'Clelland—and with a success demonstrating the feasibility of imparting economic knowledge to young people, and making it full of attractive interest to them. We must all sincerely trust that the same success may attend the effort which has been so well begun in Ireland.

I do not think I need apologise for these references to the connection between economic and statistical science and the intellectual traditions of Belfast, for, whilst they prove that I am not unwarranted in asserting its worthiness to receive this Association, they must gratify especially those whom I address, as indicating a healthy interest in the prosecution of that science, and a continuing effort to assist its progress here.

It is impossible to exaggerate the importance of such progress to the best interests of every class of our Society. The branch of knowledge, with which we have to deal, must have had an existence coeval with all advanced civilisation, although its name is new. It could never have been ignored by the historian, who properly marshalled facts and drew inferences as to the characters and actions of individuals, and the causes of the rise and fall of nations. It was necessarily cultivated by investigators of the working of commercial communities, and the influences which affect their prosperity or decay. It was implicitly recognised by all careful and conscientious statesmanship, in considering the events and circumstances which require the maintenance of institutions or warrant their abolition or reform. Those who fulfilled such functions were, consciously or unconsciously, statisticians and economists; although the recognition of statistics and economy, as distinct domains of human knowledge, and the cultivation of them with exclusive attention, are comparatively of recent origin in the world of thought.

It is not, perhaps, matter of surprise, that such newcomers have not, always, met a cordial reception;—that the masters of exact science have sometimes looked askance on their looser and more speculative methods; and disputed their right to rank, at all, with the older scientific sisterhood. But the controversy was never of much practical account, and it has well-nigh ended.

The statistician and economist do not demonstrate; do not claim for their propositions the certainty of mathematics; are too much engaged with the shifting conditions of human existence, and the infinitely varied shades of human thought and feeling to pronounce, with rigid dogmatism, as to the course to be adopted, in all the varying circumstances which concern the wealth of nations and the social interests of mankind.

But, nevertheless, they are entitled to call their labours scientific, if science be needed to deal with subjects and educe results of the last importance to our race; and to accomplish this by drawing, from facts rightly ascertained, lucidly classified and profoundly considered, conclusions of permanent truth and wide application for the goverment of human conduct and the increase of human happiness.

The reign of law is not bounded by the physical universe. Its vigilant power is not exhausted, when the planets have been kept in their courses and the earth is made bountiful for the maintenance of man. As the material creation, assuredly, did not owe its harmony and beauty to a fortuitous concourse of atoms; so the humanity, to whose needs it has such a marvellous adaption, has not been left to be the sport of chance, stumbling through the ages in blind disorder and hopeless desertion by the Infinite Power which called it into being. There is a moral government which "shapes our "ends," pervading the apparent chaos of motive and action, and making the liberty which belongs to us, as individuals, subordinate itself, with a felicity as admirable as it is incomprehensible, to the promotion of the universal good.

Three millions of free and responsible beings constitute the population of London,—each having his own idiosyncrasy and power to act in independent isolation;—but all overruled and subdued by an overmastering, though an unacknowledged influence, to the working out of a common system by which, whilst they prosecute, for their respective interests, their separate objects and pursuits, they supply one another with all things useful for their existence and enjoyment.

This is amongst the greatest of marvels; and it is achieved, as no human power could achieve it, by any governmental force or police strategy, because there is a law which dominates the movements of society and moulds the earthly destinies of men. And, surely, the inquiries which are bent to the comprehension of that law, and strive to ascertain the principles on which it acts,—from earnest observation, laborious record and just appreciation of the facts which, more or less clearly, disclose its systematic operation, in the various departments of human effort,—are vital to our well-being and progress in the world. They are fruitful in precise and enduring results. They have, already, in many points, revolutionised the opinions of communities, and shaped the policy of cabinets, and they have furnished canons of public conduct which have had an ever-widening acceptance, wherever civilisation has made its way.

Statistical inquiry is, therefore, scientific inquiry, and scientific inquiry of the highest value; and its successful prosecution is important to every class of men, from the statesman and the legislator, to the humblest operative. It has relations with all matters of real human interest. It touches the reciprocal rights of classes; the claims of capital and labour; the advancement of education; the repression of crime; the relief of distress; the prevention of disease; the improvement of agriculture; the extension of commerce; and all the various cognate questions which affect our social and industrial state.

All men may profit by acquaintance with a department of knowledge which concerns all alike—the high and the low—the wealthy and the poor. If there be ascertainable laws by which the relative rights and responsibilities of human beings are regulated, and by the evasion or defiance of which they must suffer inevitable injury, it is plainly important that some knowledge of such laws, by all men, should promote the equitable and reasonable enforcement of those rights and responsibilities.

There is, at present, a sad encounter of classes in this great town, which has paralysed its most important industry. As to the origin of the dispute or the conflicting views of the parties to it, I do not presume to offer an opinion. But I may say, for myself, and, I am sure, for those whose pleasant meeting here has been clouded by that great calamity, that we lament its occurrence, and trust it will find a speedy ending,—towards which we would rejoice to offer any aid within our power,—for the avoidance not merely of privation on the one side and embarrassment on the other, but of evil consequences which may bring permanent mischief to every order of the community, and damage vitally the commercial position of Belfast. I refer to the subject, at present, only to indicate how important it might have been, if the educational effort of which I have already spoken had so far advanced, as to spread abroad a knowledge of the issues of like encounters in other places and at other times, and of the teaching to be derived in this, as in most things else, from that old experience which—

> "Doth attain
> To something of prophetic strain!"

But, the statesman needs the knowledge which is accumulated by statistics even more than the mass of men. To legislate aright —to guide a nation safely through calm and stormy times—to take advantage of opportunities of safe and wise reform, and avoid alike the evils of obstinate adherence to abuse and reckless innovation, a member of parliament or a minister, holding political power, should qualify himself by familiarity with that science of which a most eminent professor of it (Dr. Farr) has said :—" Statistics underlies " politics. It is, in fact, in its essence, the science of politics with" out party colouring." And yet, there are many members and some ministers who, from time to time, undertake the discharge of their high functions without any such preparation as is deemed essential in the aspirants to any ordinary profession ;—of which, in their case, some little statistical and economical knowledge might well form a necessary part.

Political action should not be altogether empirical ; and scientific instruction, specially aimed to qualify for the undertaking of it, might be usefully supplied by our schools and universities, in far larger proportion than they now afford it. For, they would so supply new faculties of perception and persuasion to our public men, whom they might train to the elucidation of economic questions, and the application of established principles in the novel emergencies which perpetually test the quality of statesmanship. And so, promoting an attempt to found legislation on a scientific basis, or, at least, to have it conducted with informed and forethoughtful intelligence, they might take away, in some degree, the reproach of the famous Chancellor :—

> "Quam parvulâ sapientiâ regitur mundus!"

There are, no doubt, subjects on which the law-maker may decide, promptly and on the first impression ; but on most of those which are really important, and permanently affect the general interest, he should seek the help, which the statistician can afford by casting light from the past on the dim pathways of the future, if he would avoid perfunctory and haphazard legislation; issuing often in serious mischief, and necessitating attempts at unsatisfactory amendment, which he need never have made, if he had allowed that light to lead him to an appreciation of the difficulties in his way, and the means to master them.

Still further, the statistical method may be employed, beyond the bounds of municipal arrangements, and made to operate for the benefit of the great community of nations, ever more closely approximated to each other by the practical annihilation of space and time, which has been accomplished by the railroad and the steamship. It may assist the jurist in dealing with the vexed questions of international law and preparing the way for a progressive agreement as to the reciprocal claims and duties of civilised States. And this, though it cannot, perhaps, whilst man is man, subdue the turbulence of ambition or end the crimes and calamities of war, may promote, at least, an approach to that federation of the world, which, however it may be delayed or forbidden by human pride and passion, is dictated by the highest interests of mankind.

But further still, there are collateral advantages which statistical inquiry affords in bringing together, to such a meeting as this, men of science and men of the world,—the professor, the actuary and the politician,—who find the occasion of union and mutual benefit in a pursuit which exercises at once the student's capacities of intelligent research and logical deduction; and assists, as I have shown, to a happy issue, the best efforts of those who move in the busiest and the noblest spheres of active citizenship. And, even more widely, it promotes the diffusion of intelligence and the unity of intellectual effort throughout the earth, as in the case of the International Statistical Congress, which was originated at the London Exhibition of 1851, and has assembled successively in Brussels, in Paris, in Vienna, in London, in Florence, at The Hague, and, lastly, in St. Petersburg. At those meetings, various countries have been represented by delegates from their Governments and by men of science, with the object of discovering the best modes of statistical inquiry, of ascertaining the facts capable of numerical expression which can be collected in all civilised communities, and of establishing a world-wide uniformity of statement, tabulation and publication of those facts, giving a more exact and scientific character to results, and making them more available for universal usefulness. At the last session, the eighth of the series, in St. Petersburg,—of which I should be glad, if I had time, to give some account from an admirable report of Mr. Hammick—whose absence from this meeting I sincerely regret—notwithstanding the distance from which they came and the dangers they encountered, from cholera and otherwise, 128 foreign members attended, from almost every country in Europe, from the United States of America, from Brazil, Egypt, and Japan. There were 360 Russian members, including the first scientific men and university professors from all parts of the empire. The Grand Duke Constantine presided and opened the proceedings in a forcible address. The Emperor gave his best assistance, in every way, and the meeting was most harmonious and successful. I cannot attempt even to indicate the nature and the fruits of its important labours; and I refer to it, only that I may illustrate, by a late and conspicuous example, the mode in which the prosecution of statistical studies may tend to promote the good understanding of Governments; to dissipate evil prejudices which have so often held nations in unnatural and absurd antagonism; to diffuse the highest intelligence of its most instructed members amongst the whole family of States, and bind them together by an identity of mental action and an equal participation of discoveries and suggestions abounding in advantage to them all.

I fear I have already overpassed the limits which should have been prescribed by my promise to be brief; and I pursue no further the general considerations on which I have partially and imperfectly entered. But it seems to me, that those who are charged with the duty which I have assumed, may fairly be expected to make some allusion to matters within the sphere of their own special division of scientific knowledge, which may have peculiar relations with the localities in which they act. The opportunity of concentrating attention upon such matters may be judiciously and largely used by the authors of papers in the several Sections; but a very brief allusion to some of them can be allowed to make the opening addresses "racy of the soil." I shall merely glance at two or three which will be of interest as belonging to Ireland.

I believe that in no other department of statistical inquiry has such progress been made in these countries, within living memory, as in that which comprehends "Judicial Statistics,"—dealing with crime, its motives, its causes and the means of its repression, and with all the various questions of interest which arise in connection with the administration of civil and criminal justice. In this department, men of high intelligence have long been labouring throughout the world; and it was the subject of sedulous attention at all the international congresses of which I have spoken. The results have been satisfactory and full of practical advantage, and they will become still more so, when the inquiries which those congresses have organised shall have submitted for comparison the judicial systems of all lands, described by those who are best acquainted with them. In this good work, Ireland has done more than her part, under the supervision of Dr. Neilson Hancock, and I owe it to that very eminent statistician to quote from a letter addressed to me by Mr. Hammick, of whom I have spoken already, the remarkable statement, that "the Irish Judicial Statistics are unequalled in Europe "for skilful arrangement and lucid exposition."

The changes in the social state of Ireland, and the legislation of latter years, have fixed attention on our county courts, and made some reforms in their procedure and some extension of their jurisdiction very desirable. The Land Act creates new exigencies in connection with our agricultural and commercial life, and they must be satisfied by a moderate and carefully considered reform of institutions, which have worked well and command the confidence of the people. This is one of the most important matters which can receive the attention of the legislature; and I am glad to say that a beginning of improvement has been made in the last session, by an Act which gives the chairmen of counties power to adjudicate, in small cases, and with certain limits, although *bonâ fide* questions of title may have arisen. The want of this power has often produced a denial of justice to suitors, whose poverty has forbidden them to seek it in a superior court,—with the frequent consequences of lawless contentions, violent assaults, and, sometimes, lamentable homicides. The humble man who is wronged, in fact or fancy, and has found all available legal tribunals closed against him, takes the law into his own hands and becomes his own avenger. I hope this great mischief will now exist no more. But the extension of jurisdiction in title cases, and the further concession of a limited right to deal with transactions of partnership are only, I trust, the heralds of a more comprehensive measure, giving to our local courts, with such modification as may be necessary, the equitable jurisdiction already possessed by the county courts of England.

You will, I am pleased to learn, have the opportunity of hearing a paper on land tenure prepared by Sir George Campbell, the late Lieutenant-Governor of Bombay, who is eminently qualified to speak with authority on that momentous subject; and to whom the people of this country owe serious obligations, for the counsel and assistance which his great ability and large experience in another land enable him to afford, during the discussions which preceded the passing of the Irish Land Act. Of that Act, generally, I have no purpose to speak here. It has been in operation for too brief a time, and its provisions have yet been too little interpreted by judicial exposition, to warrant a confident pronouncement on many points connected with it. I believe that it has already been of signal advantage, and will yield far greater benefits hereafter. But I refer to it now, only that I may say a word of its purchase clauses, which,—and the best mode of giving them vitality and effect,—are worthy of the attention of all who care for the prosperity of Ireland. As to those clauses, there was no controversy in Parliament; they passed, with universal approval, through both the Houses. They recognised, with all the authority involved in so rare a unanimity of acceptance, the value of diffused proprietorship of land amongst our agricultural classes. It is impossible to over-estimate their importance to the progress of this country in industry and order. Yet, they have had a very inadequate operation: and remain almost a dead letter on the statute book. I learn, from a report of the Commissioners of Public Works, that, since the passing of the Act, 338 tenant farmers have purchased their holdings, comprising an acreage of 22,116 acres,—of which the annual rent amounted to 13,141*l.*,—at a gross cost of 319,522*l.*, including advances from the Commissioners of 192,066*l.* The report informs us, further, that the applications of tenant farmers for loans under the statute, have diminished instead of increasing, and that the purchases of one year have been 206, whilst only 106 were made, in that which followed. These facts are disappointing in a high degree; and I call attention to them in this place, that, if possible, the causes of the disappointment may be investigated and done away, and free and fruitful action given to legislative provisions, amongst the very best which have ever been vouchsafed to us. Of course, I cannot here discuss so large a question; but I may indicate my own opinion that, in order to the effective working of these provisions, it will be necessary to facilitate, still further, the transfer of land, divided in moderate proportions, by cheapening conveyances and validating titles at a small expense; and that, for this purpose, it will be proper to extend the operations of the Record of Title Office beyond the narrow sphere within which parliamentary opinion confined it when it was originally designed, and to make it effective, as it has never been, though years have elapsed since it was opened, by the application of the principle of compulsion, without the aid of which, old habits, ignorant dislike of innovation and powerful class interests, will continue to nullify its influence. The purpose of the legislature to secure a complete and permanent register of all dealings with property in the soil is of high policy and plain necessity; and must not be baulked by the supineness or the obstinacy of individuals, whose own best interest will be promoted, when they are forced to aid in carrying out that purpose. In addition, it will be necessary to reconsider the fiscal arrangements of that office as well as of the Landed Estates Court, to which it is attached, and to localise their action by the establishment of district registries, of easy access, for small transactions, and with fees too moderate to bar approach to them.

These seem to me the outlines of a reform long desirable, but heretofore, difficult,—from the *vis inertiæ* of some and the active antagonism of others,—which should promptly be undertaken by parliament, and has already, in principle, received its sanction, by its general approval of the bills introduced by Lord Cairns during the past session. It is essential to Ireland, if we would have the action of a beneficent law no longer paralysed, and the passionate eagerness with which the Irish people covet the possession of the soil indulged, legitimately and with the limits of the law; so that instead of finding it often identified with agrarian crime, we shall see it become subordinate and ancillary to the equitable settlement of the country and the lasting contentment of its people, by prompting them to obtain, through honourable industry and manly effort, that position of secure and independent proprietorship, which, according to all our experience of human nature, will lead them to identify their individual interests and objects with their duty to the State, and make them loyal and law-abiding citizens.

There are other topics on which I would willingly have addressed you; but I must remember my promise and conclude:—only observing, that I should more strongly feel the difficulty of adequately discharging the duties of a position which has been held by Lord Derby, Lord Littleton, the late Archbishop Whately, the present Chancellor of the Exchequer, and other very eminent persons, were I not sustained by so many men of high capacity and established reputation, with whose aid I trust that our meetings may be made agreeable, instructive and of some public utility.

MISCELLANEA.

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I.—*American Railways.*

The last edition of Poor's *Railroad Manual of the United States* (for 1874-75[*]), contains the following general account of the railway system of that country. As there has hitherto been no official account compiled by the United States Government, reliance must necessarily be placed on unofficial records, and as the present appears to be almost the first attempt by an American authority to compile a tolerably full statement of the railways in operation, dealing with such topics as the gross and net earnings per head of population, dividends paid, and the like, it is here reproduced. We hope that in course of time the United States Government will be able to collect full official statistics, as the information about American railways in general must, till then, necessarily remain imperfect :—

"The tabular statements on the preceding pages, present full abstracts of the share capital, indebtedness, earnings, expenses, dividends, &c., &c., of the railroads of the United States for 1873. The total length of line, of which operations are given, is 66,237 miles, against 57,323 miles for 1872, and 44,614 for 1871. The aggregate cost of the several roads at the end of the year was $3,784,543,034, against $3,159,423,057 for 1872, and $2,664,627,645 for 1871. The increase of cost for 1873 over 1872 was $625,119,977; over 1871, $1,119,915,389. Of the total cost, $1,947,638,584 was made up of share capital, and $1,836,904,450 of various forms of indebtedness, chiefly of bonds maturing at a distant day. The proportion of share capital to debt was 51·5 to 48·5. The average cost per mile of all the roads was $57,134, against $55,116 for 1872; and $59,726 for 1871. The total gross earnings for the year were $526,419,935, against $468,241,055 for 1872, and $403,329,208 for 1871. The increase of earnings for 1873 was $58,178,880; for 1872, $64,911,847, the total for the two years being $123,090,727. The percentage of increase for 1873 over 1872 was 12·4; for 1872 over 1871, 16·1 per cent. The percentage of increase in the two years was 30 per cent. Of the total earnings for the year, $389,035,508 were received for the transportation of freight and mails, and $137,384,427 for the transportation of passengers—the proportion of the former to the latter being as 73 to 27. The current operating expenses were $342,609,373, or 65·1 per cent. of the gross earnings. The net earnings were $183,810,562, or 34·9 per cent. of the gross. The latter equalled 13·1 per cent. of the cost of the roads—the net 4·96 per cent. The amount paid in dividends was $67,120,709, or 3·45 per cent. on the aggregate amount of the share capital. The gross earnings per head of population equalled $12·80 against $11·63 for 1872, and $9·80 for 1871. The ratio of total mileage to inhabitants in 1873 was one mile of road to every 582 inhabitants, against one mile to 600 inhabitants for 1872.

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[*] *Manual of the Railroads of the United States* for 1874-75. New York and London: H. V. and H. W. Poor, 1874.

"The percentage of gross earnings on the total cost of the roads was $14·33, against $15 for 1872 and $15·14 for 1871. The rate is $0·67 less than that for 1872, $0·81 less than that for 1871. The percentage of net earnings upon the cost of the roads for 1873 was $4·96 against $5·20 for 1872 and $5·32 for 1871. The increase of mileage in the two years for which returns are given, has been 21,623 miles. The increase of the cost of the roads in the same time has been $1,119,915,389. It was hardly possible that the earnings should increase in ratio to such an enormous expenditure, as two or three years often elapse after its opening before a railroad is in position to do much business, for the want of adequate equipments, or from the unfinished condition of its tracks, or from the want of suitable connection, or from pecuniary embarrassments. On the other hand, the earnings of these works, per head of population, in 1873, was $12·80 against $11·63 for 1872 and $10·22 for 1871. This is a most encouraging feature in connection with these works, as it shows that under ordinary conditions their earnings must increase, for an indefinite period, in a very rapid ratio—the increase per head in the eastern and more densely settled States being fully as great as in the western and more sparsely settled States. At the rate of the past three years the earnings of our railroads will double themselves in the next six years without the construction of an additional mile of line. The population is increasing at the rate of 1,000,000 annually. By 1880, the earnings of the roads now in operation will probably exceed $1,000,000,000. The percentage of their annual earnings to their cost will come fully up to 20 per cent.—a rate which, with good management, is sufficient to render the whole investment reasonably remunerative. In fact, there seems to be no limit to the increase of earnings, even with a stationary population, provided such population be intelligent, and provided with all the aids to industry which science and art can supply.

"One cause for the vast mileage that has been built in the past few years, and of the comparatively low rate of earnings upon the aggregate cost of our railroads, has been the extraordinary effort to complete roads, to save from lapsing the vast grants made by Congress in their favour. These grants were on condition that the roads in whose favour they were made should be built within a certain number of years. As they were made to nearly 10,000 miles of line, and were supposed to be very valuable, nearly all the roads to which they were assigned have been built. No land-grant roads of any considerable length are now likely to be built at all except the Northern and Southern Pacific, each of which have extensive grants in their favour. That a large quantity of land can be found unoccupied in the immediate vicinity of a railroad implies a very sparse population. The land-grant roads were, however, mostly through a prairie soil, which is easily and rapidly brought into cultivation; but some time must often elapse before a population will be found upon them sufficiently numerous to supply a traffic required to meet the immediate calls for interest, or for other objects. Although the lands may be very valuable, experience has shown that they can be converted only slowly into money.

"The mileage of railroads in the New England group of States for 1873 was 5,303, against 4,574 for 1872. Their cost was $263,597,778, against $230,609,794 in 1872, and was made up of $141,473,329 of share capital, and $122,224,449 of debt. Their average cost per mile was $48,882, against $50,418 for 1872. Their gross earnings were $51,676,688, against $48,519,835 for 1872. Of the gross earnings $29,310,043 were received for the transportations of freight and $22,358,645 for the transportation of passengers. The percentage of gross earnings to the cost of the roads was 19·6 per cent. The net earnings were $15,061,777, and equalled 2·92 per cent. of such cost. The earnings per head of population equalled $14·30, against $13·53 for 1872. The dividends paid amounted to $9,004,488, and equalled 6·36 per cent. on the total share capital. The ratio of total mileage to population was one mile of line to every 685 inhabitants, against 709 for 1872.

"The mileage of the railroads in the middle group of States for 1873 was 12,441 against 11,617 for 1872. Their cost was $1,126,702,107, against $922,700,774, and was made up of $649,503,037 share capital and $477,199,070 of debt. Their average cost per mile was $90,186, against $79,427 for 1872. Their gross earnings were $194,052,302, against $169,205,702 for 1872. Of the gross earnings $151,697,072 were received for the transportation of freight and $42,355,230 for the transportation of passengers. The percentage of gross earnings upon the cost of roads was 17·4. The net earnings were $69,280,585, and equalled 6·22 per cent. of such cost. The earnings per head of population equalled $18·00, against $15·86 for 1872. The dividends paid amounted to $36,531,343, and equalled 5·6 per cent. on the share capital. The ratio of total mileage to population was one mile of line to 772, against 792 for 1872.

"The mileage of the railroads of the Western States for 1873 was 32,973 miles, against 28,778 for 1872. Their cost was $1,730,728,234, against $1,472,625,232 for 1872, and was made up of $846,933,411 of share capital and $883,794,823 of debt. Their average cost per mile was $52,490, against $50,558 for 1872. Their gross earnings were $211,717,781, against $183,826,252 for 1872. Of these $51,620,779 were received for the transportation of freight and $160,097,002 for that of passengers. The percentage of gross earnings to the cost of the roads was 12·23. The net earnings were $72,464,212, and equalled 4·2 per cent. of such cost. The earnings per head of population equalled $14·33, against $13·76 for 1872. The dividends paid amounted to $19,055,247, and equalled 2·26 per cent. on the share capital of the roads. The ratio of total mileage to population was one to 406, against one to 433 for 1872.

"The mileage of the railroads of the Southern States for 1873 was 13,908, against 10,986 for 1872. Their cost was $509,324,106, against $401,913,267 in 1872, and was made up of $228,477,107 of share capital and $280,846,999 of debt. Their average cost per mile was $36,772, against $36,575 for 1872. Their gross earnings were $53,696,409, against $47,888,539 for 1872. Of the earnings $38,385,420 were received for the transportation of freight and $15, 310,989 for that of passengers. The percentage of gross earnings to the cost of the roads was 15·4; the net earnings were $18,133,349, and equalled 3·5 per cent. on such cost. The earnings per head of population equalled $4·221, against $4·31 for

1872. The dividends paid amounted to $901,396, and equalled only 0·4 per cent. on the share capital of the roads. The ratio of total mileage to population was 735, against 779 for 1872.

"The mileage of the railroads of the Pacific States for 1873 was 1,612, against 1,368 for 1872. Their cost was $154,090,809, against $131,573,990 in 1872, and was made up of $81,251,700 of share capital and $72,839,109 debt. Their average cost per mile was $95,590, against $98,300 for 1872. The gross earnings were $15,276,747, against $13,900,727 for 1872. Of the gross earnings $9,682,789 were received for the transportation of freight and $5,593,960 for the transportation of passengers. The percentage of gross earnings to the cost of the roads was 9·9; the net earnings were $8,858,639, and equalled 5·7 per cent. on such cost. The earnings per head of population were $17·92, against $17·00 for 1872. The dividends were $1,628,265—equal to 2 per cent. on the capital invested. The ratio of total mileage to population was one mile to each 389 of inhabitants, against one to each 379 for 1872.

"Within the past five years 28,396 miles of railroads have been constructed in this country. At $50,000 per mile the cost of these works has been $1,381,850,000. In the meantime $75,000,000 have been annually expended in enlarging the accommodations and increasing the facilities for business of roads already in operation—in other words, there has been expended upon our railroads $350,000,000 annually in the last five years. If we have not exceeded our means in the construction of these works, we have pushed this great interest out of all proportion to others. We have only to stop construction to have the equilibrium speedily restored. The method is a very simple one. The earnings of the railroads of the Western States the past year equalled $14·33 per head of population. The present year, but for the effect of the recent panic, they would equal $15·33 per head; and in 1875, $16·33 per head. This gain is certain to be made as soon as the country recovers from the present prostration. In the meantime, population is increasing at the rate of more than one million annually. The contribution of this increase alone, to railroads, will add, at the present rate of earnings, $14,330,000 annually to their gross receipts. But the population of the country increases at the rate of about 2·50 per cent. annually, whilst the earnings of our railroads increase in about fivefold greater ratio. The question of earning is one of population, the pioneer contributing as much, per head, as a citizen of old and densely settled States.

"The construction of railroads for a few years to come will proceed at a very slow rate compared with the past. Considering the vast area of the country, however, and the rapid increase of its population, new works will be constantly constructed, even in the States that have the greatest extent of line in ratio to their area and population. Many portions of the States east of the Mississippi are still poorly supplied with railroads. The theatre of their most active construction for the immediate future is, however, to be in the interior of the continent, for the purpose of opening outlets for the vast mineral deposits which are found in great abundance throughout the whole chain of the Rocky Mountains. The construction of the Pacific Railroad rendered possible, for the first time, the profitable working of these deposits, by the construction of lateral branch roads based upon this great line. The whole mountain region has a genial climate; possesses vast tracts of arable land, and, in addition to the precious metals, inexhaustible deposits of excellent coal, for the working of the mines and for all other industrial interests. As the interior of the country is mainly without forests, it would, but for coal, be capable of only a very considerable development. With coal there will be hardly any limit to such development. Its principal products—the ores of precious metals—will bear a very high charge for transportation. These ores are exported in great quantities to the Eastern States and Great Britain, for smelting; they already constitute no small portion of the traffic of the Pacific roads, and are one of the principal causes of their success. The local roads of this section have, without exception, it is believed, proved highly successful and remunerative, and they will be constructed as new mining districts are discovered throughout every portion of that vast region which, with the Pacific States, which have only just begun to be occupied, has an area of a million of square miles. The population of this region hardly equals one person to the square mile. What it may lack in agricultural is probably fully compensated by the abundance of its mineral wealth. It is to be henceforth one of the most attractive fields for the capital and enterprise of our people. With the progress of railroads and of settlements the production of the precious metals would soon reach an amount far exceeding that of any former period. The roads to be constructed in it will be mainly of the narrow gauge—three feet and under—a gauge which is admirably adapted to traverse contracted and winding valleys, as well as to overcome grades hitherto supposed to be insurmountable by locomotive engines.

"With the vast amount that has been expended upon our railroads, it was inevitable that their construction, at anything like the rate of the past, and which absorbed the capital and energies of almost our entire population, should come to a sudden halt. Nothing is so absorbing as the passion for the construction of these works. They make over society, as it were, anew. They increase its wealth almost beyond computation. From the vast number of opportunities they afford, it has been very easy to become speedily rich through their management. Waterings; speculation in their stocks, which could be raised or depressed at will by those behind the scenes; interest in contracts for construction, or furnishing materials by which companies have often paid double prices for what they received, have brought to too many, who have been lucky enough to secure their possession, colossal fortunes almost in a day. The moment a party got possession of an important line it became a great power. There was hardly a person of wealth or influence in the land that was not a leader or member of some such party. The cupidity of the great mass of small investors was almost equally stimulated by offers of rates of interest which promised very speedily to return to them the whole capital they invested. The mania thus became almost universal.

"It is characteristic of our people to do everything with an emphasis. The recent civil war was a case in point. The whole North took the field, and with one mighty blow effaced every trace of the greatest rebellion the world ever saw. Railroads next engaged their almost undivided attention, and most fortunately, for with the vast amount of paper money afloat, and without useful objects to absorb their activity and capital, these who have almost inevitably run wild after purely speculative schemes. If millions of dollars have been lost in constructing unproductive works, or works which anticipate the wants of the country or the means of their support, the increase in the value of property due to their construction has exceeded threefold their cost. If individuals have suffered the nation has been gaining in a wonderful ratio. But it is impossible, in a country like our own, with all its articulations so perfectly free, and where the humblest capacity can, in some field or another, find the amplest scope, that every interest should proceed with well-ordered and uniform steps. The construction of railroads has been the engrossing theme—their proper conduct after they are opened, which is a still more difficult task, is to be the next one. With but few new lines, the earnings of those already in operation must increase with great rapidity, so that all that will be wanting to render the investment in the greater number of lines productive, will be upright and competent management.

"The most unpromising feature in the future is the condition of our currency. No adequate steps have yet been taken towards its restoration to a specie standard. A great change in public opinion has undoubtedly taken place during the past year. The weight of influence is now decidedly in favor of such restoration with the least delay practicable. The recent action of the President has greatly strengthened the movement in that direction, and another session of Congress can hardly pass without the adoption of some decisive measures. There is no interest that has so much at stake in the question as railroads, as almost every company, as a means of getting money, has made nearly all their bonds, principal and interest, payable in gold. If they would reduce the rates of interest they are compelled to pay they must have their revenues payable in the same currency in which they have to pay their own debts."

II.—*Death-Rates in Sweden.*

The following memorandum has been prepared by one of the honorary secretaries :—

The following note of the death-rates of certain times in Sweden for 1870, and the mean death-rates of the whole of Sweden for a century, has been furnished by Dr. K. F. Werner, and kindly transmitted by the Minister Plenipotentiary, the Hon. Mr. Erskine.

1870.	Population.	Death-rate.
		Per 1,000
Stockholm	136,000	32·00
Götenburg	56,300	30·40
Norrkoping	23,900	28·30
Gefle	13,900	27·90
Jonkoping	10,900	26·30
Upsala	11,700	26·00
Malmô	25,600	21·20
Lund	10,700	20·90
Karlskrona	16,600	20·50

As the death-rate of Stockholm appears to be high, it is of interest to compare it with that of the other towns of Sweden enumerated. It will be seen that the mortality is highest in the most northerly towns, while they are exceptionally low in the three most southerly situations, Malmô, Lund, and Karlskrona. It would appear from this as if climate were the main cause of the high death-rate. With respect to the large towns, Stockholm and Götenburg, there are naturally other causes which contribute to it which do not exist in smaller places.

For the whole of Sweden, the following are the mean death-rates for the periods mentioned:—

	Per 1,000.
1751–60	27·40
'61–70	27·70
'71–80	27·40
'81–90	27·60
'91–1800	25·30
1801–10	27·60
'11–20	25·90
'21–30	23·60
'31–40	22·60
'41–50 (cholera)	21·60
'61–70 („)	20·10

That the decade in which epidemic cholera appeared in Sweden should have exhibited a low general rate of mortality is confirmatory of the views enunciated by some writers of authority, that epidemics are not always accompanied with a general increase of mortality in a given population.

III.—*The Commercial Position of France.*

The commercial position of France has lately been discussed in the *Journal des Débats* by M. Leroy-Beaulieu. The following is a translation of his remarks:—

"The National Assembly has recently been engaged in discussing the industrial and commercial crisis through which France has been passing, and the question was raised as to whether the present stagnation was local, or whether it extended over the whole world. Since economic questions gain little by being treated from a political or party point of view, we shall confine ourselves to an impartial discussion of the subject, allowing no extraneous considerations to intervene. The attentive observer is at once struck by the universality of the present crisis, for there is not, we believe, any nation in Western Europe, or in the distant parts of America, that has not for many months been more or less affected. The magnitude of the evil has varied in different countries; for instance, we have suffered more acutely than our neighbours from being compelled to struggle against increased taxation, insecurity, and political instability; then special causes were joined to general causes, making the crisis still more complicated. There are several ways by which to estimate the health or sickness, economically speaking, of a country. Each one of these means taken apart does not point to the direct cause, but taken together we are enabled to arrive at a correct conclusion as to the real state of affairs. The returns of the foreign trade, the receipts of the railways, the amount of the duties, the circulation of the principal banks, from such we can draw a reasonable inference as to the economical state of a country.

"This year, the custom house returns both in France and England are strikingly alike in most features. The imports have greatly increased in comparison with the preceding year, and the exports have greatly diminished. In France, during the first six months of 1872, the imports were 1 milliard 678 millions, during the corresponding period of 1873, 1 milliard 611 millions, and during the first six months of the present year, 1 milliard 854 millions. Therefore, our imports during the six months of the present year were 243 millions more than during the same period in 1873. In England, the same thing has happened but to a lesser extent; the imports of the first six months of 1873 amounted to 182 millions sterling, and in the first six months of 1874 they rose to 186 millions and a half, thus making an increase of about 115 million francs. In France, the increase of imports is due chiefly to the unproductive harvest of 1873, necessitating large purchases of grain, and the introduction in large quantities of raw materials, of which cotton formed the most prominent item. During the first half-year of 1874, we imported 204 millions of cereals instead of 34 millions in the corresponding period of 1873, making an increase of 170 millions. In the same period of 1874, France received 201 millions of cotton instead of 100 millions imported during the first half of 1873. The increase of these two articles represents more than the aggregate increase of all imports; we have not therefore imported any extraordinary quantities of the manufactured products of other countries.

"The exports, as before remarked, of England and France have declined in about equal manner. In France, during the first half of 1872, the exports had risen to 1 milliard 727 millions and a half; in 1873, to 1 milliard, 941 millions, and to 1 milliard 744 millions and a half in the corresponding months of 1874. There has therefore been, in the present year, a diminution of 197 million francs compared with 1873; but we must however remark that the results of the year are still slightly in advance of 1872, which was not a year of bad trade. In England, the exports were 125 millions and a half sterling during the first six months of 1873, and 117 millions and a half during the present year 1874, showing a decline of nearly 200 million francs, corresponding exactly with that which has happened in France. The decline of French exports in 1874, is partly explained by the deficient corn and grape harvest, our exports being 36 millions of grain and 128 millions of wine during the first six months of the present year, whilst in the corresponding months of 1873 our exports amounted in grain to 118 millions, and in wine to 162 millions. In the principal of these two articles there was a decrease of 116 million francs, equal to about three-fifths of the whole exports. Unfortunately, silk manufactured articles, made-up goods, leather manufactures, jewellery, furnish a strikingly smaller aggregate value in 1874 than in 1873; the difference for certain of these articles is 40 per cent. It is more especially in *articles de luxe* that we notice a falling off, while woollen and cotton goods were exported in larger quantities than in the year 1873. In England, a decline has taken place in the exports of all manufactured articles, woollen, cotton, flax alike, in cotton and linen yarns, and in iron and steel.

"It is apparent that both countries are passing through the same crisis, but we ought to observe that a reduction of 200 million francs on the British exports represents a less proportion than a reduction of the same amount on the French exports. The difference between the years 1874 and 1873 is, for France 11 per cent., 6 per cent. only for England. Let us add, the figures of the foreign trade do not furnish of themselves a sure criterion of the industrial condition of the country. It is quite possible that the export in certain articles may increase in exact proportion to the sufferings of the country, which is not in a position to consume the goods produced at its own manufactories. Under certain circumstances it is necessary to dispose of the surplus even at a loss, and this has undoubtedly occurred of late in many branches of manufactured goods. Although

British and French exports have declined to precisely the same amount, the British trade is more active than the French, because the home market in that country has been more flourishing than in our own.

"The railway receipts are, to a certain extent, a more accurate criterion of the economical condition of a country than the customs returns. We know how the gross receipts of the railways have been affected since the commencement of this year. The first twenty-eight weeks show a decline of about 12 millions and a half francs compared with the receipts for the corresponding period of 1873, being a reduction of 3½ per cent.; and this becomes more striking when we take into consideration an increase in the length of mileage constructed. This decline in railway receipts has been very wide spread, the gigantic lines of Austria and Lombardy, both intersecting richly endowed countries, being more notably affected even than our own. The decrease is 15 per cent. for the one and 6 per cent. for the other. In the *Commercial Chronicle*, a New York journal, we find a table of the returns of American railways during the first six months of the present year, where there has also been a considerable reduction in the gross receipts. The seventeen most important railways in the United States have yielded during the first half of 1874, $39,576,000 against $40,612,000 in 1873, a diminution of $1,102,000, or 2½ per cent. This fact is again more striking, if we observe the increased mileage of these railways constructed from year to year. In England, the railway returns show a slight increase compared with the year preceding, but the rate of increase is insignificant, and certainly less than that of former years.

"The third indication of the economical state of a country may be found in the state of its fiscal duties. The French Treasury during the first half of the present year did not derive the estimated amount from taxation, a loss having arisen of about 27 millions, or about 3 per cent. on the sum total of the taxes; a most serious, although only a slight decline. Other countries are in a similar financial situation. Italy, for example, suffers a loss of some millions by the payments made from the Treasury on account of the year 1873. In Prussia there has been a heavy falling off in the revenue derivable from the customs.

"The decrease in the circulation of the Bank of France has been continuous and regular since the commencement of the year. Instead of 1 milliard 157 millions, the figures on the 23rd January, the amount was not more than 727 millions on the 23rd July. This decline is much to be deplored, although it was natural and necessary. The figures during the first month of this year did not betoken its normal condition; they were artificially increased by the liquidation of our heavy wars. The same decrease in the operations of the Banks has been general throughout Europe. On the 30th of last May, according to the *Bremer Handelsblatt*, the circulation of thirty German banks was 273 million of thalers, being a decrease of 5 million thalers compared with the preceding return, 175 million thalers compared with May 1837, and since then the decline has continued. The Prussian Bank on the 15th last July, showed a diminution of 10 millions of thalers, and at Vienna at the same time the decline was 2,821,000 florins; at Brussels 4,277,000 francs; at New York about sixty of the Associated Banks also sank in a few days $1,770,000. On the 23rd July, the Prussian Bank sustained a fresh fall of 2,273,000 thalers. Thus, in whatever direction we turn, whether we consult the custom house tables, the railway receipts, the tax returns, and finally the operations of the bank, all agree in proving a real and universal crisis. Yet we believe it is felt more severely in France than elsewhere on account of the heavy loans which have been the means of withdrawing from the industrial operations of the country a large amount of capital, by reason of the taxes which have added greatly to the burdens, and political events which have weakened credit. But already there are signs that point to the passing away of this crisis. An abundant harvest, and a low rate for money, with a final arrangement of our loans, will speedily afford spare capital for profitable enterprises."

IV.—*The Customs Report on the Trade of* 1873.

From the *Economist* of 22nd August, 1874:—

"The annual report by the Commissioners of Customs on the trade of the country coming under their observation is usually an interesting document, and the report for 1873, which has just been published, contains a great deal of new matter.

"The *first* subject which attracts our attention in the report is that with which the Customs Department is more directly concerned, viz., the collection of the revenue. To show the exact rate of growth of the revenue, the commissioners make an allowance to compensate for alterations in the rate of duties, and reckoning in this way they find that the revenue for the year 1872 should be taken at 21,011,276*l.*, and for 1873 at 21,999,260*l.*, showing an increase in the latter year of 4·7 per cent. The increase of the population for the same period was 0·9 per cent., and of the values of the imports and exports 1·9 per cent., so that the increased prosperity of the masses, as indicated by the growth of the revenue, was in a greater ratio than the increase of population and trade. The commissioners remark:—'It seems to us to be not an unfair inference that the means of purchasing more than is necesssary for mere existence, or what may more familiarly be termed the well-being of the people, has increased more rapidly in 1873 than their numbers, and that, if not each individual, the people collectively ought to be better off than in the previous year.' We subjoin below (Table 1) a copy of the short table in the report showing these facts.

"The *second* point we observe in the report is the account given of the extent of our trade with particular foreign countries. The commissioners remark that the facts on this head could always have been extracted from the Trade Returns, but they have themselves taken the trouble to draw up a table, of which we subjoin a copy (Table 2), arranging the various foreign countries and British possessions in the order of their importance to us as countries from which we buy or to which we sell. The table is very interesting and useful, the following being our six principal trade connections:—

	Values of Goods.		
	Imported from.	Exported to.	Total Values.
	£	£	£
United States of America	71,471,493	33,574,664	105,046,157
France	43,339,234	17,291,973	60,631,207
British India	29,890,802	21,354,205	51,245,007
Germany..................................	19,926,451	27,270,342	47,196,793
Australia..................................	17,262,706	17,610,152	34,872,858
Russia	21,189,331	8,997,721	30,187,052

The United States thus retains its place as the most important single country with which we deal, France being the next in order, but British India and Germany both approaching very nearly the scale of French trade. It will be seen from the table itself, however, that several of the countries next on the list to the above six are very important to us,—Holland being almost as important to us as Russia; and China, Egypt, British North America, and Belgium having each over 20,000,000*l.* of annual trade with this country. There are some very singular anomalies. Egypt, for instance, with only about five or six millions of population, transacts more business with the United Kingdom than is done by the remainder of the Turkish empire with a population of nearly 30 millions. Egypt, in fact, sells to us 14,156,000*l.* worth of goods against 6,069,000*l.* sold by Turkey, though our exports to Turkey are curiously enough rather larger, amounting to 7,733,000*l.* against 6,222,000*l.* exported to Egypt. It will be observed, too, that, while the aggregate trade with the United States is so preponderant, it is chiefly in the imports from that country that the excess occurs, and as regards countries to which we export, the United States though first is not so disproportionately so as it is in the imports. Our exports thereto in 1873 were 33,575,000*l.*, but to Germany they were 27,270,000*l.*, and to British India 21,354,000*l.*—Australia, France, and Holland coming next with about 17,000,000*l.* each.

"A *third* new point in the report is the treatment of the distinction between 'quantities' and 'values' in our imports and exports. This is a distinction on which we have often insisted, and the results worked out with great elaboration in the report and appendix show very clearly what the nature of the trade in that year was. We may extract the following remarks in which the results are summarised:—

"1. As to the imports, the commissioners state:—

"'We here see that provisions (bacon and hams, butter and cheese) have made about an equal rate of advance in quantity and value. Eggs have increased 24 per cent. in quantity and 33 per cent. in value. Potatoes show comparatively little difference in this respect, so also do the articles of tea and rice, both having declined in regard to quantity and value to about the same extent. Currants and raisins together have decreased in price in a greater degree than in quantity. Raw cotton has increased in quantity in 1873 over 1872 at the rate of 8 per cent., but in value at the rate of 2 per cent. only. This article has shown a considerable decline in price during the greater part of the year, the average import price per lb. having been $8\frac{5}{8}d.$ in 1873, against $9\frac{1}{8}d.$ in 1872, whilst the average values of the exports for the same periods were $7\frac{1}{8}d.$ and $7\frac{6}{8}d.$ respectively.

"'Hemp and jute together show an increase of 14 per cent. in quantity, and a decrease of 2 per cent. in value. There was a depression in the jute market in 1873, the average value per cwt. having been only 15*s.* 8*d.* against 19*s.* 7*d.* per cwt. in the preceding year.

"'The value of wood and timber has shown an advance considerably beyond the proportion of the advance in quantity. Corn and flour together show a decrease of 7 per cent. in quantity, and an increase of 1 per cent. in value.

"'Perhaps the most remarkable variation, however, has taken place in the article of coffee, which, showing an increase of 10 per cent. in quantity, has increased in value to the extent of 37 per cent. . . . Looking at the import trade of the year 1873 as a whole, it is characterised by a general increase in the articles used for food. There is also an increase in the supply of the raw material for manufactures, coupled in most cases with a diminished price for such material, a condition which should augur well for the prosperity of the country.

" ' The following table may give some idea of the values of our imports according to a rough division or classification suggested by the uses to which they are applied :—

Statement of the Number of Articles, and of the Total Value of Foreign and Colonial Merchandise Imported into the United Kingdom in the Year 1873, *divided into the following Classes.*

	Number of Articles.	Value.
		£
A.—Articles in a raw state to be used in manufacture	117	152,747,137
B.— „ partially manufactured	31	27,929,891
C.— „ wholly „	96	33,649,964
D.— „ for food, including condiments and stimulants	123	153,167,022
E.— „ not properly belonging to any of the foregoing heads	16	3,793,358
Total	383	371,287,372

" 2. As to the exports, the commissioners' remarks are :—

" ' We think that the return will be interesting and instructive. The fluctuations in price of several articles of prime importance are constant, and sometimes very considerable and very rapid. The quantities are necessarily affected by the price, but not always immediately, and sometimes not according to expectation or inference. In comparing the exports of one year with those of another by the test of value, erroneous conclusions might be drawn, unless checked by the comparison of quantities. A smaller export of quantities might show a larger export of value in the same year, and it is therefore desirable to afford some means of forming an opinion whether the fluctuations in either have been great, and especially in such articles as, with reference to their leaving this country, would lead to a favourable or unfavourable conclusion as to the general prosperity.

" ' We desire, therefore, to call attention to some remarkable instances of fluctuation in articles in great demand.

" ' Alkalis, exported annually for values of between two and three millions sterling, show an increase in quantity at the rate of 6·8, while the increase in value has been at the rate of 17·8 per cent.

" ' Agriculturalists, maltsters, and brewers may congratulate themselves in the knowledge that while the export of beer has increased in quantity at the rate of 12 per cent., it has increased still more in value, that rate being 16·1 per cent.

" ' Cement (a manufacture of growing importance) has increased in quantity at the rate of 5·9 but in value at the high rate of 31 per cent.

" ' No housekeeper needs to be told that coals have been dearer, nor need it surprise him to learn that the economical law, that increase of price checks the demand, has naturally diminished the quantity exported. He may, however, bear the increased cost with more resignation when he reads that our customers abroad have had to pay more in money, at the rate of 26·3 per cent., for less in quantity at the rate of 4·1 per cent. for this commodity.

" ' The export of glass of all kinds has increased in value at the rate of 19·7 per cent.

" ' Machinery and mill work, entered according to value, has increased at the rate of no less than 22·2 per cent.

" ' Iron, unwrought and wrought, of which we exported in 1872 more than three million of tons, for a value approaching 36 millions sterling, has fallen off, during 1873, in quantity at the rate of 12·6 per cent., but this smaller quantity has produced a higher value to the extent of 4·8 per cent.

" ' A most remarkable falling off appears in the quantity exported of rags and other materials for making paper, being little more than half the quantity exported in 1872. The price of this class of goods appears to have lightly fallen.

" ' The export of the manufactured product, viz., paper and stationery, appears to have slightly increased in quantity and value.

" ' The increase in the quantity of salt exported is remarkable, being at the rate of 11·6, but the increase in its price is still more so, being at the rate of 47·9 per cent. The largest proportion of this increased quantity has been sent to British India and the United States of America.

" ' There has been a remarkable renewal of activity in the export of telegraphic wires and apparatus, shown in a rise from a value of 405,318*l.* in 1872, to a value of 2,359,223*l.* in 1873.

" ' On the unfavourable side of the account must be placed such goods as show a falling off both in quantity and value, and among these the most prominent are wool and woollen goods. These present a falling off in quantity, in three designations of the article and its manufactures, at the rate of 7·5, 12·6, and 16·2 respectively, whilst some compensation is to be found in an increase of 21·9 per cent. for that class of its manufactures for which the value only is given in the abstract.

" ' Linen yarn and linen manufactures have also fallen off, yarn at the rate of 7·9, and manufactures at the rate of 15·1 in quantity, while, as in the case of wool, manufactures of that class, which are given by value only, have shown an increase at the rate of 9·9 per cent. Reference to the return will supply information in detail as to these woollen and linen goods.'

" A *fourth* subject on which the report throws some light is the variation in the average price of certain leading articles, as shown by the comparison of quantities and values in the returns. It is often a defect of tables of variations in market prices, when used to throw light on such a question as an average rise or fall in the price of gold, that such market prices seldom show correctly the variations in value at which actual transactions are effected. Although markets are held, a great deal of business is always done outside the markets, the terms being guided by, but not necessarily the same as, the market quotations, while the business actually done in the market differs greatly in amount at different prices. The quotation may sometimes be so extreme either way that only isolated sales or purchases are made. Contracts extending over a long period are also entered into for the supply of important articles, and although the price may vary meanwhile extensively for those who have not made contracts, the transactions of the period, in consequence of these contracts, may be at a very different average of price from that which would be deduced from an average of these variations themselves. The proper cure for this defect in a mere table of market prices, is to have a list of the prices at which a large number of transactions are actually effected, and the means for making up such a list as regards the foreign trade exist to some extent in the Board of Trade Returns, where the quantities are known and the values are made up from the declarations of the merchant, checked and controlled by the Custom House authorities themselves. At any rate, such a list of prices will be useful for comparison with other lists, and we have therefore great pleasure in subjoining (Table 3) a list of the average prices of several important articles of export ascertained in this way for the last three years. The average rise in coal and iron in these years is especially shown very clearly, and we should like much to see the list very largely extended in future years.

"'We may add that the above are only a few out of many important subjects, which are fully treated in the report and accompanying tables, and which will make them extremely useful for reference. As a full analysis of the statistics of the import and export trade of the United Kingdom in 1873, as compared with the years immediately preceding, the report is certainly among the most valuable of the documents of a similar nature annually laid before Parliament.'"

1.—*Population, Imports, and Exports, and Gross Revenue of Customs in* 1872 *and* 1873 *compared.*

	1872.	1873.	Percentage of Increase.
Population of the United Kingdom....	31,835,757	32,121,488	0·9
Value of imports and exports into and from the United Kingdom, exclusive of bullion and transhipments	£669,282,458	£682,292,137	1·9
Gross revenue of customs partly estimated to compensate for alterations in the rate of duty in operation during a portion of each year........	21,011,276	21,999,260	4·7

2.—*Total Value of the Imports of Foreign and Colonial Merchandise, and of the Exports of Produce and Manufactures of the United Kingdom in the Year* 1873, *Distinguishing the Countries in the Order of the Total Value of their Trade with the United Kingdom.*

Countries.	Imports.	Exports (Produce of the United Kingdom).	Total.
	£	£	£
United States........	71,471,493	33,574,664	105,046,157
France	43,339,234	17,291,973	60,631,207
British India	29,890,802	21,354,205	51,245,007
Germany	19,926,451	27,270,342	47,196,793
Australia	17,262,706	17,610,152	34,872,858
Russia........	21,189,331	8,997,721	30,187,052
Holland	13,272,444	16,745,850	30,018,294
China, including Hong Kong	13,303,917	8,294,669	21,598,586
Egypt	14,155,913	6,222,013	20,377,926
British North America........	11,727,851	8,619,705	20,347,556
Belgium	13,075,186	7,200,949	20,276,135
Spain and Canary Islands........	11,404,129	3,921,355	15,325,484
Brazil	7,399,974	7,544,669	14,944,643
Turkey	6,068,925	7,733,487	13,802,412
Italy	3,831,091	7,444,195	11,275,286
Sweden	7,739,744	3,150,323	10,890,067
British West Indies	6,680,016	3,481,597	10,161,613
„ possessions in South Africa....	4,120,915	4,335,461	8,456,370

2.—*Value of the Imports of Foreign and Colonial Merchandise*—*Contd.*

Countries.	Imports.	Exports. (Produce of the United Kingdom).	Total.
	£	£	£
Portugal, Azores, and Madeira	4,661,094	3,433,058	8,094,152
Chili	4,764,195	3,165,104	7,929,299
Spanish West Indies	5,109,259	2,751,927	7,861,186
Peru	5,219,572	2,524,622	7,744,194
Argentine Republic	2,604,043	3,729,090	6,333,133
Denmark	3,571,139	2,671,344	6,242,483
Straits Settlements	3,464,279	2,105,223	5,569,502
Ceylon	4,331,006	1,052,072	5,383,078
Norway	2,947,033	1,880,852	4,827,885
New Granada	1,077,233	3,074,972	4,152,205
West Africa (Foreign)	1,963,507	1,124,970	3,088,477
Uruguay	1,270,723	1,762,042	3,032,765
Greece	1,736,643	993,571	2,730,214
Austrian territories	869,433	1,484,320	2,353,753
Japan	561,390	1,680,017	2,241,407
Wallachia and Moldavia	1,024,334	1,079,473	2,103,807
Mauritius	1,273,910	581,893	1,855,803
Philippine Islands	1,420,009	428,145	1,848,154
Central America	1,363,999	330,887	1,694,886
Mexico	499,532	1,194,124	1,693,656
Malta	301,668	989,174	1,290,842
Gibraltar	92,905	1,197,693	1,290,598
Morocco	970,206	313,791	1,283,997
Channel Islands	551,009	707,832	1,258,841
Java and other Dutch possessions in Indian Seas	436,163	760,452	1,196,615
West Africa (British)	473,405	701,586	1,174,991
Hayti	339,002	548,023	887,025
Bolivia	771,843	75,520	847,363
Dutch West Indies	233,659	428,686	662,345
Venezuela	97,772	527,605	625,377
Algeria	438,784	64,409	503,193
Ecuador	318,161	101,640	419,801
Danish West Indies	10,454	351,646	362,100
Tripoli and Tunis	150,527	64,604	215,131
Aden	25,876	141,983	167,859
Whale Fisheries, Northern	145,598	—	145,598
Islands in the Pacific	47,492	93,716	141,208
East Africa	69,214	64,161	133,375
French West Indies	17,684	47,491	65,175
Siam	31,496	30,895	62,391
Persia	10,991	46,853	57,844
Native territories in the Indian Seas	56,566	405	56,971
Falkland Islands	28,703	12,165	40,868
French possessions in India	32,663	—	32,663
Madagascar	2,037	25,874	27,911
St. Helena	1,611	22,444	24,055
Cochin China, Camboja, and Tonquin	17,000	66	17,066
Bourbon (Réunion)	13,100	—	13,100
Patagonia	9,325	—	9,325
Ascension	3	3,263	3,266
Arabia (Muscat)	—	1,535	1,535
Heligoland	—	55	55
Aggregate of the import and export trade of the United Kingdom	371,287,372	255,164,603	626,451,975

3.—*Average Rates of Value for Coals, British Cotton, Linen, Woollen, and Iron Manufactures Exported from the United Kingdom in the Years* 1871, 1872, *and* 1873 *respectively.*

		Years.								
		1871.			1872.			1873.		
		£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
Coals	per ton	–	9	9½	–	15	9¾	1	–	11
Cotton yarn	per lb.	–	1	6¾	–	1	7	–	1	5¾
,, manufactures — Piece goods, white or plain	per yard	–	–	3¼	–	–	3½	–	–	3½
Printed, dyed, or coloured		–	–	4¾	–	–	5	–	–	4¾
Mixed goods		–	–	8¼	–	–	8½	–	–	9¼
Piece goods of all kinds		–	–	3¾	–	–	4	–	–	3⅞
Stockings	pr. doz. pairs	–	6	6¼	–	7	1	–	7	5
Thread for sewing	per lb.	–	3	2¾	–	3	5¾	–	3	6½
Linen yarn		–	1	2¾	–	1	4½	–	1	4½
,, manufactures — Piece goods, white and plain	per yard	–	–	7½	–	–	7½	–	–	7½
Checked, printed, or dyed		–	–	8	–	–	7¾	–	–	7½
Sail cloth and sails		–	1	1	–	1	1½	–	1	2
Piece goods of all kinds		–	–	7½	–	–	7½	–	–	7¾
Thread for sewing	per lb.	–	2	4¾	–	2	5	–	2	6
Woollen and worsted yarn		–	2	9½	–	3	1	–	3	1¼
,, and worsted manufactures—Cloths of all kinds, Duffels, &c. Of wool only	per yard	–	3	10½	–	4	4	–	4	2
Of wool mixed with other materials		–	2	3¾	–	2	7¼	–	2	7¾
Mixed and unmixed conjointly		–	3	1½	–	3	5	–	3	4¾
Worsted stuffs, of wool only		–	1	4¼	–	1	5½	–	1	4
Of wool mixed with other materials		–	1	1¾	–	1	2¼	–	–	11¼
Mixed and unmixed conjointly		–	1	2	–	1	2½	–	1	1
Blankets and blanketing		–	2	–½	–	2	–	–	2	–½
Flannels		–	1	–½	–	1	1	–	1	1½
Carpets		–	3	–	–	3	3	–	3	2½
Iron—Old for remanufacture	per ton	4	16	–	6	2	4	6	12	4
Pig		3	1	8	5	–	11	6	4	2
Bar, angle, bolt, and rod		8	7	7	11	11	8	13	–	–
Railroad, of all sorts		8	4	9	10	16	1	13	5	–
Wire		17	1	3	20	1	7	23	9	1
Hoops, sheets, and boiler plates		11	18	3	16	9	3	18	11	–
Tin plates		24	4	5	32	5	–	32	16	3
Cast or wrought, unenumerated		14	14	7	17	14	6	19	13	–
Steel, unwrought		30	12	3	32	18	7	37	1	5
,, manufactures		52	8	1	55	4	10	69	7	–

V.—*Statistical Abstracts.*

FROM the *Economist* of 8th August, 1874:—

"We are glad to notice the publication of the twenty-first number of that useful work, the 'Statistical Abstract for the United Kingdom,' continuing the statistics of finance, trade, &c., &c., to the end of the last calendar or financial year. It is unnecessary to make any observations upon the numerous tables which have now been published for several years, and which comprise an amount of statistical information in a convenient, popular, and accessible form to be obtained perhaps in no similar publication; but we find some additional useful information in the present volume to which it may be useful to draw the attention of the public, and of which a well-informed correspondent gives the following account:—

" 'On p. 15 the existing customs tariff has been inserted. This is a valuable addition, and to many persons will be well worth the 8*d.*, which is the charge for the whole volume. It is a curious fact that many people still imagine that customs duties are imposed on a great variety of articles; whereas, there are really only seven descriptions of articles liable to import duty, viz., cocoa, coffee, chicory, dried fruits, tea, tobacco, and wine. The other duties which are levied upon foreign articles, shown on the same page, are duties to countervail the excise duties levied upon British made goods. The next addition is that of the principal statistics of the post office and telegraphs. On p. 116 will be found a return of the number of letters and newspapers and book-packets delivered in each division of the kingdom during the past fifteen years. From this table it appears that the total number of letters delivered in the United Kingdom increased from 545 millions in 1859 to 907 millions in 1873. The newspapers and book-packets increased in the same period from 82 millions to 254 millions. These facts amply demonstrate the value of the liberal arrangements made by the post office for postal communication. On the next page will be found the statistics of telegraphs. The number of public telegrams forwarded in 1873 was over 17 millions, as against 11½ millions in 1871. A table showing the number and amount of money orders issued in this country in each year from 1859-73 follows next, which shows that this branch of business has about doubled since 1859. Another table gives the number and amount of money orders issued in this country for payment in the colonies and foreign countries, and also of those issued in foreign countries and the colonies for payment in this country. From the continued increase in the amount of money thus transmitted, it is evident that this agency is much appreciated by the public. The last addition which we have to notice is that relating to the statistics of railways; these have been brought down to the end of 1873, being for a year later than has usually been given. It may not be out of place to mention that the statistical abstract is gaining favour abroad as well as at home. A few weeks ago our contemporary, *L'Economiste Francais*, devoted two articles to a comparison of the method of preparing and publishing official statistics in France and in England, in which it was admitted that the English abstract greatly surpasses the 'Exposé comparatif de la situation économique et commerciale de la France,' both as regards the amount of information it contains and the manner in which it is edited and printed.' "

The first number of a new statistical abstract, viz., for the principal foreign countries, has also been issued lately by the Statistical and Commercial Department of the Board of Trade; the object and scope of the work being explained as follows in a report by Mr. Valpy to the Board:—

"*To the Right Honourable the Lords of the Committee of Privy Council for Trade.*

"My Lords,

"I have the honour to submit to your Lordships the first number of a

Statistical Abstract relating to the principal countries of Europe, and to the United States of America, based upon the plan of the Statistical Abstracts for the United Kingdom and the British Possessions.

"In this abstract the tables have been prepared to present a comparison for a period of about twelve years, commencing with the year 1860, and ending with 1871 or 1872, the latest date for which the required particulars could be obtained.

"The preparation of comparative tables of foreign statistics for a period of from ten to twelve years has been found a difficult work, owing to the changes that occur from time to time in the system of making up the various public accounts in almost all countries.

"In order to secure as far as possible in the tables for each country, corresponding results year by year, the assistance of the chief officers of the several foreign statistical departments was invited, and was most cordially and kindly rendered. These gentlemen were supplied with printed proofs of the tables (compiled so far as they could be in this department from the foreign official returns), and many corrections and additions were received from such official sources. The trouble bestowed in several and the readiness in all instances to promote the publication of correct statistics for each country, may be taken as proofs of the general willingness of statistical authorities to further the useful object of publishing statistics suitable for international comparison and reference.

"Unfortunately the statistics of many countries cannot now be compared, owing to differences in dates and in the classification of details; but the making known the want of greater assimilation in the statistical tables of different countries, is a necessary step towards obtaining so important an element in comparative statistics.

"The first table of this abstract, in which the total area and total population are stated, affords an instance of the variations in the dates of some branches of national statistics. It will be observed that the census of the population is generally taken decennially, but not in the same year in all countries.

"The tables of the total revenue and expenditure exhibit the variations that exist in the modes of rendering the financial accounts of the various countries. Budget statements or estimated receipts and expenditure are given for some countries, and the actual amounts paid into and out of the public treasury in others. There is not a uniformity of practice in giving the gross or net amounts of the public income and expenditure. The cost of collecting the revenue is treated as a branch of expenditure in most countries, and the gross income and expenditure is then given, but there are exceptions to this system, and then only net amounts are published.

"In statements of the total revenue raised and expenditure incurred in each country, the amounts received and disbursed both by the State and local or departmental authorities ought to be included. Both aggregate and separate totals of the results of the State and local finances ought to be given in national statistics. But the services undertaken by the State and local authorities are so differently apportioned in various countries, that in this respect considerable difficulties occur in international comparisons of revenue and expenditure.

"The construction of railways has caused differences to occur not only in the sources of revenue and expenditure, but in the amount of the public debt of different countries. Where the State undertakes wholly or partially to provide capital for railway purposes, receipts and payments connected with such services appear in the public accounts, and must be taken into consideration in making international comparisons of financial statistics.

"The several points of difference in the official statistics of the various countries are, as far as practicable, made apparent in the several tables of this abstract.

"In the shipping and trade statistics fewer differences have to be noticed. As regards returns of imports and exports, although most countries distinguish the general and special commerce (the latter term means generally 'Imports for Home Consumption,' and 'Exports of Domestic Produce,' including 'Duty-paid Foreign Imports'), yet it appears that there is not in all countries exactly the same classification for goods, nor quite the same distinction for the separate kinds of trade.

"Goods intended for transit only, are not so completely separated from goods imported for home consumption in some countries as in others. In the case of some articles upon which the import duties are low, merchants pay such duties in preference to paying and reclaiming the deposit required by the transit regulations; and, in such cases, goods are entered in the official returns as imports for home consumption, instead of imports for transit. The classification of 'Domestic Produce' in the case of exports, is not always restricted to articles actually produced in a country itself; colonial produce in some instances being also registered as home produce.

"The Statistical Department will endeavour to give additional information in future numbers of this abstract, intended to be issued annually, but the scope of an abstract for such a series of years must necessarily be rather limited. More detailed statistics, but for periods of three years only, are given in the volumes of statistical tables relating to foreign countries, also prepared and issued by this department.

"I have the honour to be,
"My Lords,
"Your Lordships' most obedient Servant,
"R. VALPY.

"*Statistical and Commercial Department,*
"*Board of Trade,*
"*Whitehall, July,* 1874."

This new work has been made the basis of the following observations in the *Times* on the recent progress of the trade of foreign countries :—

"Turning over its leaves to trace the progress of these countries in trade and manufactures, we find, as regards iron for instance, that up to 1872, the United States had been exporting little more than one-half what it did before the war so far as the raw material is concerned, but that its exports of machinery, though still comparatively small, have grown from almost nothing at all in 1860 to nearly a million sterling. But no other country, except Belgium, has made any progress, so far as these statistics tell us, in developing a trade of this kind. The iron trade of Belgium has, however, developed largely; but even that is not anything to be frightened at. It was in value under a million sterling for all sorts of iron and iron manufactures taken together in 1860, and had risen to nearly ten and a half millions in 1872. But in the same period the iron trade of England, including manufactured goods and machinery, rose from 17½ millions to 44 millions, and that too before the late rise in values tended to make comparisons in prices somewhat deceptive. The recent trade disputes may have helped Belgium on a step since then, but obviously it would be a long time, when the growing wants of the world are considered, before the one country could seriously interfere with the other, and it is a matter for satisfaction rather than the contrary if prosperity may be looked upon as general rather than special, and that it is therefore due to a real widening of the general markets. France does not figure as an importer of iron, and may so far be supposed to meet her own wants; but she does not do much more than this. The total export of 'metal wares' from that country in 1872—the last year given—amounted only to about 1½ millions, and the figures of previous years do not show that the trade is perceptibly growing. And it is much the same with other articles which form the staple of British trade, as, for instance, with cotton manufactures. There is no lack of prosperity and advancement, but it is general rather than special. Nobody is absolutely cutting us out. Up to 1869 France only just kept to the level of the figures of 1860 in imports of raw cotton, and since then they have fallen off as well as the exports of manufactured goods. Belgium shows the enormous advance of about 66 per cent. in 1871 over 1860; but for several years previously the increase was only 6 per cent., and even the higher total only represented a total of two millions sterling, while the exports of cotton manufactures only reach a fourth of that amount. It might naturally be supposed that the United States would be a great competitor in this branch of the trade. It has the best raw material at hand, and in recent years has made vast additions to its cotton machinery; yet its exports of cotton goods were in 1872 only about a third of what they were in 1861, before the country took to Protection, and the imports at the same date were larger by a million than they were in 1861, and that although they had fallen as low in 1865 as a total of a million and a half. The total in 1872 was over six millions. In the same period the exports of England of cotton manufactures and yarn together rose from 52 millions sterling to 80—an advance sufficient to prove that here also she has not been losing ground on account of others' prosperity. And it is much the same with woollen goods. Here again Belgium proves to be advancing by rapid strides to a high state of prosperity and a prominent position among commercial nations, having almost quadrupled her imports of wool between 1860 and 1871; and France has in the same period doubled her imports, in both cases with corresponding results in the exports. In this respect Italy, too, has made some strides forward, though only, as it would appear, in supplying her own wants. She has not yet entered the general market. And the United States seems also to have developed enormously her home manufactures, importing as she does three times greater a quantity of raw wool in 1872 than in 1869, while not exporting manufactures at all.

"In some of these instances, however, England is herself a cause of the advance, for she is a large importer and trans-shipper of the woollen yarn which forms the staple of export of both France and Belgium, and her manufactures have certainly not declined in the same period. Considering the stagnation of trade there, the United States is almost as large a buyer of our woollen manufactures as ever, and our total exports of woollen manufactures, though at present depressed, have risen in value from 12 millions in 1860 to nearly 32½ millions in 1872, and our exports of yarn in the same period have nearly doubled.

"We might carry the investigation further with the same results, but enough is here set forth to show that there is no need to be alarmed. The truth is that with her enormous superiority in the mere carrying trade of the world, her numerous colonies, and her vast foreign possessions, England, in spite of Free Trade, is almost beyond competition within a certain limit. At the same time, it is evident enough that year by year competition is becoming keener, and that, therefore, it would be most impolitic to sit still under the foolish idea that, come what may, we must have it all our own way."

VI.—*Italian Finance.*

From the *Times*' Italian correspondence, dated Rome, 4th September, 1874:—

"The actual financial condition of Italy, examined without reference to the past, presents a sufficiently gloomy aspect. She has an annual deficit which has never been less than 200,000,000 frs.; a public debt which, including all liabilities, has increased in the course of thirteen years from 2,439,000,000 frs. to 9,757,000,000 frs.; a forced paper currency of 840,000,000 frs., together with an entire disappearance of gold and silver; exchange ranging between 8 and 16 per cent., and at times even 20 per cent., against the country; and imports to a large amount in excess of the value of Italian productions exported. There is no want of those who are willing to darken the shadows; to point out that this state of things indicates a rapid tendency towards national bankruptcy; that the country is gradually going from bad to worse, and that the people are no longer able to bear the burden of taxes imposed upon them. Allowing for exaggeration in this, and admitting on the other side the evidence of greatly increased activity and prosperity, there is at the same time no gainsaying the absolute facts which keep the price of Italian Consols down at 72 in Rome and 67 in London, and leave the impression of a most unpromising state of things.

"How far this impression is just or not Signor Emilio Morpurgo, Secretary-General of the Ministry of Commerce, attempts to show in a work he has prepared, entitled *La Finanza Italiana della Fondazione del Regno fino a questi Giorni.* Without entering upon the question how far the financial administration of each succeeding ministry may have been prudent or reckless, how far the taxes may have been wisely imposed or the expenditure judiciously regulated, he gives a general history of the difficulties the new kingdom has had to contend against in the organisation of its financial administration, with the results, in detail and in the aggregate, up to the present time. It is a work which merits examination by all interested in the progress of Italy, and more especially by the Italians themselves, to whom the bare figures alone should convey eloquent lessons for the future. One would think that the results Signor Morpurgo places before his countrymen would act as a stimulus to the public spirit of a people who have shown so much patriotism, and rouse them to make those sacrifices which, with well-regulated economy on the one hand and punctual payment of the taxes, by those who can well afford to pay, on the other, would gradually bring about that equilibrium which will be the best safeguard of the country. Signor Morpurgo points out that the wars Italy has sustained in her struggle for independence, the large standing army she has been obliged to keep on foot, and the changes made in the seat of government from Turin to Florence, and from Florence to Rome, are but the better known among very numerous causes which have contributed to swell the public debt, and burden the country with an excess of expenditure over and above her income. In the first enthusiasm which followed the constitution of the new kingdom, and the acquisition of that liberty so long and ardently desired, both Government and people alike considered it to be an imperative duty to cancel all remembrance of the past government of the country, and it was thought a proof of the highest patriotism and soundest wisdom to do this without delay. The belief which had been inculcated far and wide, that the enormous latent riches of Italy required nothing but the light of liberty to call them instantly forth, contributed its influence, and the old systems of taxation were, in general terms, swept away before the new could be more than partially applied. Simultaneously with this, the anticipations of the newly-liberated peoples had to be met; means were required for developing the resources and capabilities of the country; the absolute neglect indulged in throughout a long series of years, when all the world around was making progress, necessitated the immediate expenditure of large sums on public works, such as roads, railways, harbours, &c. The people, left in the direst ignorance, were in need of education, and public schools had to be established throughout the kingdom; at the same time indemnities had to be paid to the deposed Governments, and thousands of their useless officials became pensioners of the State. While through these and various other causes the expenditure was increased with frightful rapidity, the collection of the revenues was attended by many difficulties, for the most part unforeseen. Through the changes made with so little forethought, the returns fell off considerably below what they were ascertained to have been in past times. It would, from a financial point of view, have been well to retain the old machinery till the new could be brought into operation, but it was now too late. Extreme difficulty was experienced, and loss of time incurred, in obtaining the information requisite to the application in an equitable manner of the Italian system of taxation to the newly-acquired territory, while at the same time the people became discontented at having to pay direct taxes to which they had not been accustomed. The result of all this became rapidly manifest. Constituted on the 17th of March, 1861, the Italian Kingdom inherited, from the separate Governments to which it had succeeded, a public debt amounting to 2,241,870,000 lire, or francs, and a deficit of about 100 millions. In the first year of national existence the income from ordinary sources, which yielded far less than they should have done, amounted to no more than 458 millions, while the expenditure, increased on all sides, ran up to 812 millions; the deficit was more than tripled, and, from that time to the present, the establishment of an equilibrium has been the unrealised aim and dream of each succeeding Minister of Finance. In the meantime, however, the unity of Italy has been completed by the acquisition of the Venetian and Roman provinces; a more or less uniform system of taxation has been brought into operation throughout the peninsula, with steadily increasing results; and in 1871 the efforts of Signor Sella led to a simpler system of finance being brought into operation in place of the complicated machinery previously in use. Instead of keeping the accounts of each year open and unbalanced for an indefinite period, causing interminable confusion and uncertainty, through a multiplicity of running accounts, the simple plan was adopted of closing the accounts at the end of each financial year, and carrying forward the balances to be received and paid to the next.

"Altogether, the thirteen years from the proclamation of the Italian kingdom to the present time constitute a period of transition, prolonged through the war of 1866, followed by the acquisition of the Venetian provinces, and through the acquisition of the Roman provinces in 1870, with the second removal of the capital the following year. What progress has been made by Italy during this period is shown by the following table of receipts and expenditure, and from it may also be deduced what continued progress she ought to make now that her unity is complete, and the impediments to her progress removed, or in course of removal:—

Year.	Income from Ordinary Sources.		Total Expenditure.		Deficit.	
	frs.	c.	frs.	c.	frs.	c.
1861	458,322,688	71	812,272,476	50	353,949,787	79
'62	471,241,264	61	921,016,396	60	449,775,131	99
'63	511,827,129	77	897,745,262	24	385,918,132	47
'64	565,310,610	28	1,033,139,152	67	467,828,542	39
'65	637,176,089	78	1,066,459,286	32	429,283,196	54
'66	639,612,269	10	1,256,822,008	56	617,209,739	46
'67	784,250,797	31	1,117,588,023	90	333,337,226	59
'68	726,486,545	58	1,187,351,948	80	460,865,403	22
'69	901,573,731	81	1,151,481,294	51	249,907,561	70
'70	800,649,014	09	1,021,925,930	27	221,276,916	18
'71	1,016,003,551	63	1,277,780,785	31	261,777,233	68
'72	1,158,327,679	27	1,366,976,993	88	208,649,314	61
'73	1,180,645,952	32	1,384,621,858	49	203,975,906	17

" Taking all the circumstances into consideration, this shows a manifest improvement throughout. While, on the one hand, the expenditure has increased during the thirteen years from 812 to 1,384 millions per annum, the income from ordinary sources only has increased from 485 to 1,180 millions, and while the deficit is still as much as 204 millions, it bears a very different proportion to the resources of the State from that of the first six of the thirteen years.

" Looking at the parallel progression of increase in the income and expenditure during the ten years since 1864, it appears that, while the former has become more than double in amount, the latter has only increased to the extent of one-third and a fraction. The augmentation of income has come about through the increasing development of the resources of the country. The continued augmentation of the expenditure has mainly arisen through the interest on the steadily increasing public debt, the guarantees and indemnities. What Italy might have accomplished had she been able to start fair, without encumbrance, with an income proportioned to her needs, and without the necessity, whether real or imagined, of keeping a large army on foot, is shown by the comparatively small amount required for the public administration, which, with but a slight increase, has during the last thirteen years fluctuated about an average of 338 millions.

" The following table shows the proportions between the amounts expended for intangible expenses, *i.e.*, interest on the public debt, public works, removals of the seat of government, succour to inundated provinces, pensions, &c.; for the civil administration; and for the military establishment:—

Year.	Intangible Expenses.		Civil Administration.		War.	
	frs.	c.	frs.	c.	frs.	c.
1861	200,855,563	98	336,028,729	75	275,388,182	77
'62	242,137,697	74	315,944,163	51	368,276,563	15
'63	274,232,719	38	318,262,874	20	306,809,633	92
'64	351,808,094	14	361,987,408	93	320,900,587	78
'65	501,898,318	34	318,208,774	48	249,249,651	98
'66	496,635,497	98	236,495,234	31	509,507,182	83
'67	549,555,719	35	370,215,052	83	319,875,073	48
'68	648,867,107	18	327,160,906	30	216,513,673	2
'69	619,326,211	44	345,291,012	58	186,864,070	49
'70	634,925,367	10	200,195,940	17	186,804,623	–
'71	691,575,261	71	396,287,101	34	189,918,422	26
'72	726,151,146	1	447,713,421	93	193,116,338	78
'73	739,867,543	75	428,970,850	25	215,783,464	46

"Dividing the total expenditure during the thirteen years we find the following proportions under each branch of the administration:—

Ministries.	Total Expense.		Per Cent.	
	frs.	c.	frs.	c.
Finance	8,242,253,232	5	56	77
War	2,833,624,209	35	19	52
Public Works	1,396,980,932	29	9	62
Interior	713,334,426	33	4	90
Marine	605,383,258	57	4	17
Grace and Justice	384,361,389	31	2	65
Instruction	194,664,230	72	1	34
Commerce	95,424,256	40	–	66
Foreign Affairs	53,579,242	61	–	37
	14,519,605,177	63	100	–

"The public debt, including all items of State liability, amounts to nearly ten milliards, and has increased year by year as follows:—

Year.	Capital.		Interest Paid.	
	frs.	c.	frs.	c.
1860	2,439,351,650	67	115,764,606	24
'61	3,131,053,610	50	150,821,920	20
'62	3,336,915,886	12	159,993,256	27
'63	3,948,252,334	40	192,309,200	80
'64	4,797,211,053	62	237,939,513	18
'65	5,533,475,570	25	269,851,363	20
'66	6,929,975,782	91	335,641,861	98
'67	7,415,040,316	11	348,165,975	19
'68	7,678,766,985	53	360,787,733	41
'69	8,081,333,454	97	369,157,983	42
'70	8,815,281,277	56	387,454,193	14
'71	8,950,724,322	23	379,733,899	25
'72	9,622,195,879	74	382,274,447	47
'73	9,750,613,267	29	383,528,744	37

"Of this total 7,092 millions are formed by the consolidated debt; 1,642¾ millions by the debt redeemable within a period of years or otherwise; and the remainder by treasury bonds and the amount of the forced paper currency, against which the Government has deposited in the National Bank an equivalent amount in consols which bear no interest; and hence it is that the amount of interest paid has remained about the same during the last four years, and in fact has slightly decreased since 1870, while the total liabilities have increased through the amount of guaranteed paper issued. The exact totals are as follows:—

	frs.	c.
Consolidated debt	7,091,829,660	63
Redeemable ,,	1,642,773,106	66
	8,734,602,767	29
Treasury bonds	183,010,500	–
Paper currency	840,000,000	–
Total liabilities	9,757,613,267	29
Deduct the unalienated stock given in deposit	1,281,254,503	33
	8,476,358,763	66

VII.—*The Effective Population.*

From the *Pall Mall Gazette* of 4th September, 1874:—

"An American medical writer has compiled some very suggestive statistics showing the relative rank of different countries according to their effective population. By effective population he means the portion of the population between 20 and 70 years of age. In those fifty years, as he remarks, each generation not only provides for its own present wants and the needs of its old age, but also saves enough to maintain its children up to 20. Of course this is not accurately true. Many are productively employed before 20, and some continue to produce after 70. But the exceptions are not numerous enough to disturb his comparisons, and, besides, they are almost equally frequent in all countries. Another circumstance which diminishes the value of the statistics is, that they make no allowance for the different proportions of the effective population non-productively employed in different countries. For example, they take no account of the enormous standing army of France, nor of the still more enormous pauper horde of England. The tables represent, therefore, the potential rather than the actual effective populations. Understanding them so, then, it appears that in proportion France possesses the largest effective population of any country, and Switzerland next, Belgium being third; Prussia is eighth, England ninth, and Ireland last. France stands highest, no doubt, because her population is stationary, while Ireland stands lowest because of the drain of emigration, and probably, too, of the early marriages and large families common there. The proportion of the effective class in France exceeds that in Ireland by 35 per cent., and even in England the proportion is higher than in Ireland by 12·9 per cent.; while the effect of immigration is shown in the United States by the fact that the proportion in Massachusetts exceeds that of the whites in the Carolinas and in Georgia by 38 per cent.—that is, by more than the excess of France over Ireland. 'Comparing the sustaining power with the burden laid upon it the demand was 94 per cent. greater in Ireland than in France. On the whites, it was in the Carolinas 50 per cent., and in Georgia 60 per cent. greater than on the people of Massachusetts.'

"More interesting as well as more practically instructive is a second table, which exhibits the relative vitality of different populations. Judged by this test, France falls from the first place, which we have just now seen her occupy, to the second lowest, while England rises from the ninth to the third. The United States also rise, coming, so far as men are concerned, next after England. But Ireland still remains at the bottom of the list. Out of 10,000 children born, it is found from official statistics that in Norway as many as 7,415, or, roughly speaking, 3 out of every 4, live to be 20 years of age. In England only 6,627 so live, or 788 fewer than in Norway. In the United States boys have nearly as good a chance of life as in England, while girls have not. But in France only 5,022, or scarcely more than 1 out of 2, reach 20; while in Ireland no more than 4,855, or actually less than 1 out of 2, attain that age. More surprising still are the statistics regarding old age. Out of the same 10,000, for example, we learn that in Norway 3,487, more than 1 out of 3, reach 70; in England almost 1 out of 4; in the United States, still men only, 1 out of 4—a trifle higher than England; in France, 1,776, or about 1 out of 8½; and in Ireland only 861, or 1 out of 11½. If this table is to be depended upon, we thus learn that of all countries in the world Norway offers the new-born child the best chance of long life, while Ireland offers the worst. And France, universally admitted to be, so far as soil and climate are concerned, one of the most favoured regions of the earth, offers but little better chance than Ireland. As regards Ireland, it is obvious that the statistics, if collected since the famine, are totally misleading. In the first place, the mortality which attended the famine and the pestilence which followed it was altogether abnormal; and, in the second place, there must have emigrated from Ireland since the beginning of the famine, in the winter of 1845, at least 3,000,000 people. If, then, we would know the real mortality of the Irish, we must not confine our researches to Ireland, but must follow the emigrants to Great Britain, the United States, and the British Colonies. None of these remarks, however, apply to France; and the bad chance of life which she offers is certainly most surprising. But, in whatever way accounted for, the cost of these unproductive lives to the countries upon which it has fallen is the same.

"'In the production of dead machinery, the cost of all that are broken in the making is charged to the cost of those which are completed. Thus, if two fail when half-finished for every one that is completed, the cost of the finished one is doubled; and this increase of cost is in proportion to the expenditure which has been made or lost on those that broke down in the process. So, in estimating the cost of raising children to manhood, it is necessary to include the number of years that have been lived by those that fall by the way, with the years of those that pass successfully through the period of development. . . . The loss in Ireland was 120 per cent. greater in the first year, 75 per cent. in the first four years, and 120 per cent. greater in the period of growth than in Norway.'

"We have quoted this passage at length, as setting in a new light the pecuniary value of sanitary precautions resulting in an improvement of the public health.

"One other important point illustrated by these statistics is the relative length of life of the portion of the population over 20 in the different countries which afford *data* for making the calculation. In this respect, again, Norway stands first; Sweden, as before, ranking second. The United States, still only in respect to men, now takes the third place, Hanover the fourth, while England is only fifth. And France and Ireland are once more at the bottom of the list, Ireland being lowest. The average length of life of the effective population in Norway is 39·61 years; in England, 35·55; in France, 32·84; and in Ireland, only 28·88 years. Thus it will be seen that, while in Norway the proportion of the population that reaches twenty survives nearly forty years, or four-fifths of the effective period, to contribute to the wealth of the community, in Ireland the same proportion survives less than twenty-nine years, or considerably under three-fifths of the effective period. The Irish effective population has, therefore, eleven years less than the Norwegian in which to replace the cost of its own maintenance and accumulate a capital for its successors. The last point illustrated by these curious statistics is 'the cost, in years, of creating and maturing human power, and the return which it makes in labour in compensation.' This is done by showing the number of labouring and productive years secured in each country for every one thousand years expended in the developing period upon all who are born, whether they die prematurely or live to old age. It appears that in Norway 1,881 years are secured, in England 1,688, in France 1,398, and in Ireland only 1,148. These results are arrived at from life tables, but the dates of the tables are given only in the cases of France and Ireland. As regards France the date is 1806; and as this was the very middle of the great war she was waging against all Europe, and as, besides, nearly three-quarters of a century have since elapsed, it can hardly be but that the chances of life have since greatly improved. On the other hand, the Irish date is 1841—that is, before the famine—and consequently our previous objections do not apply to the present calculations. It will be seen that Norway still heads the list. In Norway a larger proportion of infants survive than in any other country, and when grown up these infants display the greatest power of endurance that statistics acquaint us with. A thousand years spent in the growing period produce 63 per cent. more of working life among the Norwegians than among the Irish, and 13 per cent. more than among American men, while the same expenditure among American men produces a return of 44 per cent. higher than in Ireland. But it will be noticed that, in the case of the United States, throughout, only men are referred to, while in every other case both sexes are included, mortality in America being higher among women than men."

VIII.—*County Receipts and Expenditure in England.*

The following memorandum is prefixed to the last abstract of the county treasurer's accounts presented by the Local Government Board:—

"MEMORANDUM.

"Compared with the previous year's return of county rates, the present ones show an increase both in the receipts and the expenditure, as set forth in the following table:—

	Year ended with Michaelmas		Difference in 1873.	
	1872.	1873.	More.	Less.
Valuation for—	£	£	£	£
County assessment	93,785,769	98,859,279	5,073,510	—
Police ,,	62,958,565	65,420,943	2,462,378	—
RECEIPT.				
County rates	1,031,127	1,096,098	64,971	—
Police ,,	583,790	618,539	34,749	—
Her Majesty's Treasury Subventions—				
Police	156,453	161,826	5,373	—
Prosecutions and prisoners	186,146	167,660	—	18,486
On account of lunatic asylums	80,883	99,207	18,324	—
Other receipts, including loans	544,800	568,332	23,532	—
Total receipt	2,583,199	2,711,662	128,463	—
EXPENDITURE.				
Police	813,451	863,162	49,711	—
Administration of justice	607,257	588,868	—	18,389
Lunatic asylums	345,618	394,758	49,140	—
Salaries of county officers	138,697	141,094	2,397	—
Loans repaid with interest	399,777	399,880	103	—
All other expenses	210,779	275,927	65,148	—
Total expenditure	2,515,579	2,663,689	148,110	—

"Under the head of the 'Administration of Justice,' in the table above, are included the charges for the 'prosecution and conveyance of prisoners,' 'maintenance of prisoners,' 'reformatories,' 'prison establishment charges, &c.;' and under 'lunatic asylums' are placed the cost of 'maintenance of lunatics' and the expense of 'building, repairs, and establishment.' The amount of each of the items just named, which, with some others classed above, as 'other receipts,' is discriminated in the detailed accounts at pp. 6 *et seq.*

"The average rate in the pound for the whole kingdom for the county rate was 2¾*d.*, and for the police rate levied in counties, 2¼*d.*

"The amount of loans which had been effected upon the security of the rates, and which was outstanding at Michaelmas, 1873, appears to have been 3,247,845*l.*

"FREDERICK PURDY,
"*Principal of the Statistical Department.*

"*Local Government Board,*
"21*st July,* 1874."

IX.—*Poor Law Administration in* 1873.

FROM the *Times* of 22nd September, 1874:—

"The annual blue-book just issued is, as a consequence of the increased and increasing duties of the Local Government Board, a much fuller one than any that have preceded it from the same quarter. The report itself, which bears the signature of Mr. Stansfeld, is, however, of moderate extent; it is the appendix that is unusually voluminous.

"The report commences by stating that the expenditure for relief to the poor in England showed a marked decline in the parochial year 1873. From 1866, when the relief amounted to 6,440,000*l.*, it had continued to increase up to and inclusive of 1872, when it exceeded 8,000,000*l.* Last year it fell to 7,692,000*l.*, being a decrease on comparison with the previous year of 315,000*l.*, or nearly 4 per cent. The decrease was very general; only five counties exhibiting any increase, and that but small, as shown by the following statement of percentage differences in 1873 as compared with 1872:—

"'Decrease per cent. in relief:—Kent (metropolitan), 11·9; Surrey (metropolitan), 7·8; Oxford, 7·2; Suffolk, 6·8; Durham, 6·7; Middlesex (metropolitan), 6·6; Northumberland, 6·5; Leicester, 6·2; Monmouth, 6·2; Huntingdon, 5·5; Norfolk, 5·3; Kent (extra-metropolitan), 5·1; Northampton, 4·9; Salop, 4·9; Essex, 4·2; Hertford, 4·1; Cornwall, 4·1; Berks, 4·0; Lancaster, 3·9; Westmoreland, 3·9; South Wales, 3·9; York, North Riding, 3·6; Buckingham, 3·5; Surrey (extra-metropolitan), 3·4; Cambridge, 3·0; Wilts, 2·7; Somerset, 2·7; Bedford, 2·6; Stafford, 2·6; North Wales, 2·5; Devon, 2·4; Cumberland, 2·4; Southampton, 2·2; Lincoln, 2·2; Chester, 2·2; Gloucester, 1·8; Worcester, 1·7; Derby, 1·6; Dorset, 1·2; Middlesex (extra-metropolitan), 1·1; Nottingham, 0·6; Rutland, 0·2.

"'Increase per cent. in relief:—Hereford, 3·2; York, East Riding, 1·2; Sussex, 1·0; Warwick, 0·8; York, West Riding, 0·5.'

"Computing the cost of relief upon the population, 6*s.* 11½*d.* per head would have defrayed the sum in 1872, and 6*s.* 7¼*d.* in 1873; hence, it was 4¼*d.* per head less in 1873 than in 1872. As a charge upon the rateable value of the property assessed, the relief of 1872 was equal to a fraction over 1*s.* 5½*d.* in the pound. Though the aggregate sum expended in relief decreased last year, there were one or two of its principal items which moved in the opposite direction. A comparison of the half-dozen sums which make the total yields these results for the whole kingdom:—

All England.	Parochial Years.		Difference in 1873.	
	1872.	1873.		
	£	£	£	
In-maintenance	1,515,790	1,549,403	33,613	Increase
Out-door relief	3,583,571	3,279,122	304,449	Decrease
Maintenance of lunatics in asylums	742,483	780,927	38,444	Increase
Loans repaid with interest	278,566	272,698	5,868	Decrease
Salaries and rations, also superannuations	871,402	893,218	21,816	Increase
Other expenses of relief	945,867	914,957	30,910	Decrease
Total relief to the poor	8,007,403	7,692,169	315,234	Decrease

"Here a decrease of 8½ per cent. in the out-door relief is accompanied by an increase of 2¼ per cent. of in-maintenance—figures which indicate that, so far, the guardians have applied the workhouse with the object of reducing the out-door relief. The cost of maintaining lunatics in asylums has increased in the year about 5¼ per cent. This is a charge which for some time past has shown a strong tendency to grow; it costs now more by 170,000*l.* to support this class of the poor than it did six or seven years ago. It will be interesting to note the influence of the Treasury grants in aid, which were sanctioned last session, upon its further development. The salaries, rations, and retiring allowances of local poor law officers increased 2½ per cent. last year. These expenses have also a steady power of development. The salaries participate in the general rise of the money value of paid services. Rations cost more than they did, and superannuations constantly tend to swell this item of 'relief to the poor.' In a similar table limited to the metropolis the same items betray an increased expenditure:—

The Metropolis only.	Parochial Years.		Difference in 1873.	
	1872.	1873.		
	£	£	£	
In-maintenance	433,215	444,909	11,694	Increase
Out-door relief	374,736	325,105	49,631	Decrease
Maintenance of lunatics in asylums	159,530	165,020	5,490	Increase
Loans repaid with interest	101,235	101,838	603	,,
Salaries and rations, also superannuations	168,745	171,306	2,561	,,
Other expenses of relief	449,744	420,864	28,880	Decrease
Total	1,756,929*	1,630,886*	126,043	Decrease

* Inclusive in 1872 of a balance of 69,724*l.*, and in 1873 of 1,844*l.*

"In this case the in-maintenance increased 2¾ per cent., the out-relief decreased 13¼ per cent., the cost of asylum lunatics increased 3½ per cent., and the salaries 1½ per cent. The decrease, however, on the other items was sufficiently marked to leave a reduction on the total relief of 7¼ per cent.

"The Board ascribed the decrease of relief in a great measure to the prosperous state of the country and the abundance of employment, but think it also is to some extent 'due to the exertions which, in pursuance of the advice of the Board, have been made by the guardians to revert, in administration of the law, to the principles laid down in the first report of the commissioners for inquiring into the administration and practical operation of the poor laws.' Though the sum expended in relief in 1873 was nearly 1,400,000*l.* beyond the same charge in 1834, the year which immediately preceded the passing of the Poor Law Amendment Act, yet the rate per head was then 8*s.* 9½*d.*, as against 6*s.* 7¼*d.* now. Hence there is so far a decrease of 25 per cent. The average number of paupers relieved, computed on the midsummer and midwinter returns, exceeded a million in each of the years 1869, 1870, and 1871. An appreciable decline of numbers occurred in 1872, and the diminution was more decided in 1873. In that year the average was 154,000 under the return of 1871, and 94,000 less than 1872. The adult able-bodied paupers last year amounted to 125,000, or 47,500 fewer than in 1871, and 26,000 under the record of 1872. The ordinary and the adult able-bodied pauperism of England are compared for 1872 and 1873 in the next table :—

Parochial Years.	Average Number of Paupers of all Classes.			Ratio per Cent. of Paupers to Population.
	In-door.	Out-door.	Total.	
1872	149,200	828,800	977,200	4·2
'73	144,338	739,350	883,688	3·8
Decrease in 1873	5,862	88,650	94,512	0·4

Parochial Years.	Average Number of Adult Able-Bodied Paupers.			Ratio per Cent. on Paupers of all Classes.
	In-door.	Out-door.	Total.	
1872	22,000	128,930	150,930	15·4
'73	19,331	105,594	124,925	14·1
Decrease in 1873	2,669	23,336	26,005	1·3

"These figures only bring the information down to Lady-day, 1873. By using the monthly statistics of pauperism the Board have shown what the facts were up to the close of last year, through the medium of the next table :—

Census of Paupers (excluding Lunatics in Asylums and Vagrants) on the 31*st of December*, 1871-73.

	In-door.	Out-door.	Total.
1871................	150,093	780,809	930,902
'72................	147,657	690,979	838,636
'73................	144,201	637,269	781,470

Note.—Decrease in 1873, as compared with 1871, 149,432, or 16·1 per cent.
" " '72, 57,166, " 6·8 "

"A parliamentary paper has recently shown that the monthly pauperism at the end of June last was reduced to 735,000.

"Though the paupers generally have of late diminished in number, the lunatic poor show no sign of reduction. The members of this afflicted class are specially enumerated on the 1st of January in each year. Going back seven clear years it will be found that the whole number of lunatic paupers of whom the Poor Law Board had cognisance was 38,487. This was in 1865. In 1873 they had by steady yearly increments reached to 51,405,—nearly 13,000 more,—being an increase of something over 33 per cent. During the same interval the pauper lunatics in asylums and licensed houses increased from 22,174 to 29,992, thus showing an addition to their numbers of 7,818, or 35 per cent. It is for this class the guardians are to be reimbursed by Her Majesty's Treasury at the rate of 4*s.* per head weekly—a subsidy which will relieve the unions of about 40 per cent. of the total cost. The domiciles of the whole of the lunatic poor chargeable to unions and parishes are shown by the next table for 1872 and 1873. The latter year brought 1,270 more of the insane on the hands of the guardians:—

Domicile of Insane Paupers.	1st January.		Increase.
	1872.	1873.	
County or borough lunatic asylum	27,685	28,411	726
Registered hospital or licensed house	1,406	1,581	175
Workhouse	13,608	14,343	735
Residing with relatives, in lodgings, or boarded out	7,436	7,070	366*
Totals	50,135	51,405	1,270

* Decrease.

"The Board observe 'that the efforts made to regulate the administration of relief to vagrants have had a remarkable effect in diminishing the number of vagrants who resort to the workhouses for food and shelter.' The confirmatory figures representing the numbers relieved in all England on the 1st of January from 1869 to 1873 are these in the order of dates:—7,020, 5,430, 3,735, 3,378, and 3,027. Hence, after a clear interval of three years, the unions have had to relieve proportionately three instead of seven vagrants. In the metropolis alone the proportionate reduction has been still greater, the respective figures being 1,882, 1,627, 1,067, 828, and 615. Here the numbers amount in 1873 to a third of those who were relieved in 1869. The Board learn from the reports of their visiting officers that the casual wards 'in which laxity of discipline prevails or in which the prescribed task of work is not rigidly enforced, are well known to and frequented by the habitual vagrants, and that so long as wards of the kind so mismanaged are allowed to exist, the objects of the Pauper Inmates' Discharge and Regulation Act cannot be fully attained.' The boards of guardians usually, however, appreciate the services of the visiting officers, and the guardians give their own servants instructions for the legal detention of vagrants. The results were that during the half year ended the 31st of December, 1872, when the system first came into operation, 3,821 casual paupers were identified in the metropolitan wards as habitual vagrants, of whom 140 were allowed to escape detention. In the corresponding period of 1873 the habitual vagrants who were identified amounted to 7,900, and three only escaped.

"What is known as the 'cellular system' for casual wards has been introduced under the sanction of the Board in many unions. By cellular arrangement each vagrant is kept apart from his fellows in the ward. The separation is attended with satisfactory results, and it is suggested that this plan should be adopted 'in any unions in which vagrants apply in considerable numbers for relief.'

"Several pages of the report are given to the proceedings under the Metropolitan Poor Act, 1867. One of the most urgent duties imposed upon the local authorities by the Act was the enforcement of adequate relief for the sick paupers.

The district subject to the statute comprises thirty unions. By the end of last year six unions had made effectual provision for their patients in sick asylum districts; nine had separate infirmaries and two unions were then erecting them; four unions treated the sick in workhouses set wholly apart for that purpose, so that twenty-one unions appear to have provided accommodation for the sick to the satisfaction of the Local Government Board. Proposals have been made by the Board to the Hackney, Marylebone, and Whitechapel Unions for the introduction of separate infirmaries. The Hackney guardians appear to have resisted, and at the date of the report, the Board were considering 'the question of the further steps which may be necessary to take' to enforce compliance. A similar difficulty was experienced with the St. Olave's Union. The Board issued a compulsory order in consequence, but it became unnecessary to enforce it, the guardians having resolved to provide such accommodation for the sick as the authorities at Whitehall required. There remained six unions in which the sick paupers are, or were, treated in mixed workhouses. These are Bethnal Green, Fulham, Lewisham, Paddington, Hampstead, and Mile End Old Town.

"The use of the Poplar union workhouse as a general test of the able-bodied pauperism of several other metropolitan unions works satisfactorily. Those unions have found a most valuable test of destitution in the privilege of sending to that workhouse able-bodied applicants for relief. Apparently its testing power might be extended to more unions; the house will accommodate 768 able-bodied paupers; but at the close of the year it only had 223 inmates. The Board, however, trust that the facilities which the Poplar workhouse temporarily affords the metropolitan guardians will not divert the attention of the latter from the necessity of making permanent provision for testing the claims of the able-bodied of their own unions. The Board express their regret at the little which has been done in the metropolis to effect the permanent classification in separate establishments of the various classes of in-door paupers other than the sick. The Acts of 1867 and 1869 give the guardians of different unions the power to combine their workhouses for the better classification of the inmates. With reference to these desirable combinations the Board remark:—

"'We attach the utmost importance to this improvement of the classification of in-door paupers, which we believe to be a necessary condition of the maintenance of that discipline which lies at the root of an effective administration of in-door relief. This improvement, however, cannot be effected, except at an enormous and almost prohibitory cost, otherwise than by the combination of several boards of guardians for this purpose. Their existing workhouses would, in that event, become available for the separate accommodation of various classes of in-door paupers chargeable to the several combined areas.'

"It is doubtful whether in the present state of the law the Board can compel the guardians to enter into these combinations.

"The total number of pauper children attending workhouse, separate, and district schools during the half-year ended Lady-day, 1873, was 34,897; the yearly salary of the teachers—the money is paid from the parliamentary grant—was 36,098*l.*, or rather more than 1*l.* per child. The reports continue to be most satisfactory as to the health and moral tone of the boys in the Goliath training ship. During 1873 no fewer than 69 boys entered the naval or military service and 157 the mercantile marine. Consequently 226 have thus made the first step towards an independence of the poor's rate. Complaints having reached the Board of the ill-treatment of pauper apprentices employed in the Great Grimsby fishing trade, Mr. Baldwyn Fleming, the poor law inspector for that part of the kingdom, was directed to inquire into those allegations. The Board received from Mr. Fleming a very full and valuable report. The general result appeared to show that, although the boys might occasionally suffer the usual hardships of a seafaring life, the trade offers a good opening for those of suitable age and constitution willing to enter it. The Board pointed out the extent to which the provisions of 14 and 15 Vict., cap. 11, are available for the due protection of parish boys bound to the fishing or any other trade. It seems but the other day that the Leavesden and Caterham asylums were opened for the reception of the imbecile and harmless pauper lunatics of the metropolitan unions. Recently a number of the inmates of the two asylums have been draughted into the Hampstead Hospital, no longer required for smallpox patients. The space gained at Caterham and Leavesden 'has been utilised by the guardians, who have been enabled to diminish the number of paupers treated in asylums and licensed houses.' The work of the smallpox hospitals is now light. Homerton contained but nineteen patients, and Stockwell had no cases. The two hospitals have been used for the reception of fever cases, and these have been sufficiently numerous to show the value of those institutions 'both as a means of cure and as an agency for preventing wider propagation of contagion.'

"During the year the Board have issued regulations to the Central London and to the Poplar and Stepney sick asylum districts, authorising the managers to receive into the asylums single women or widows between 25 and 35 as 'probationary nurses.' These persons must undertake, except under special circumstances, to remain as probationers for twelve months, and are to be employed under the control of the medical officer and the matron as assistant nurses. The arrangement is recent; but the Board believe that, upon the whole, it has been found to work satisfactorily.

"The Local Government Board have given much of their attention to the difficult task of eradicating ophthalmia from the pauper schools of the metropolis, where it has extensively prevailed, though of a milder type than formerly. Since its outbreak twelve years ago at the Hanwell schools 'but few instances have occurred in which the disease has been destructive of sight.' The attention of many eminent oculists has from time to time been called to this subject by the school managers. 'There can be little doubt,' the report states, 'that the condition in which these children have been during the last few years sent to these schools has proved a most fruitful source of this as well as other infectious diseases.' Special and full reports from Dr. Bridges and Dr. F. J. Mouat upon the causes of the outbreak and the remedies to be applied are printed in the appendix to the present volume. The most important preventive measure has been the isolation of the affected children. The Board express their acknowledgment of the energy displayed by the managers of the North Surrey schools in wrestling with the disease. More than 300 children there suffering from the epidemic were removed to an unoccupied building and placed under the care of a medical officer having special experience in the disease. Many of the children have been cured 'without serious interruption of the ordinary course of school discipline.'

"With reference to the boarding-out system, it appears that after three years only 217 children have been placed out under the Local Government Board's order. This is a very insignificant fraction of the pauper children on the relief lists. Of the committees formed for carrying out the scheme, about half, for some reasons not stated, have failed to accomplish their object. It is known, too, that the Poplar Union, one of the first that tried boarding-out, find it a failure, and have taken back their children. It has been alleged that many more children were boarded out than is shown in the official reports. The Board have made inquiries as to the truth of these allegations, and it appears 'that the majority of these children are merely allowed out-door relief with a view to enable them to reside with their relatives and friends.'

"The administration of out-door relief has again occupied the attention of the Board. Elaborate reports upon the system in force in the various unions selected for illustration are given in the appendix. Mr. Longley has reported upon the arrangements employed in the metropolis, Mr. Culley upon the practice of the northern unions, and Mr. Sendall upon those chiefly in the home and midland counties. These documents, coupled with the previous researches of Mr. Wodehouse, form a comprehensive inquiry into the out-door relief system highly important and practically suggestive.

"The Board remark that the suggestions made in these reports 'may be of much service in indicating to the guardians, not only of the unions specially reported on, but of all unions throughout the country, the points to which the attention of the guardians and their officers should be directed in regulating the administration of relief.' A report by the Rev. William Bury, one of the vice-chairmen of the Brixworth Union, shows the beneficial results which the measures recently adopted there in regard to the administration of relief have brought about, chiefly by a searching inquiry into individual cases, the guardians have reduced the number of paupers on their lists, in two years, from 1,043 to 609—that is, from the 1st of January, 1872, to the 1st of January, 1874. In the earlier year the relief cost 9*s.* 3*d.* per head of population, in 1873 it was reduced to 7*s.* 3*d.*, but since the pauperism of 1873-74 is lower than that of the preceding year we may anticipate a still further reduction in the rate. Communications to the Board from Colonel L. Gardiner and Miss Octavia Hill upon the utilisation of voluntary efforts in aid of relief to the poor will also be found in the appendix. An official report from Mrs. Nassau Senior, upon the education of girls in pauper schools, in which the working of the system and the after-career of the girls when placed out in the world are minutely investigated, is also given in the appendix. It is impossible within our limits to convey an adequate account of Mrs. Senior's inquiries; those which relate to the conduct of the girls when placed out are of unusual interest. 'The most frequent complaint made,' observes Mrs. Senior, 'is that the girls are ill-tempered and either extremely dirty or very inefficient as regards domestic service.' We must, however, refer our readers to the report itself to show the wide sweep of the lady's research for her conclusions and recommendations. Reports from the several inspectors of workhouse schools also appear in the appendix. Mr. Carleton Tufnell's includes the autobiography 'of a pauper boy, showing his ascent from the condition of a street Arab to competence and respectability.' This narrative, the Board remark, shows the favourable result of the training and instruction which the boy received in the district school in which he was ultimately placed.

"During the year 369 persons emigrated at the cost of the rates. Of that number 102, being orphans and deserted children, were sent to Canada under the charge of Miss Rye. In accordance with the provisions of the New Bastardy Act (36 and 37 Vict., cap. 9, sec. 6) forms for proceedings on the application of the mother, and similar forms to be used by the guardians of the poor where bastard children may become chargeable, have been issued by the Board."

REGISTRATION OF THE UNITED KINGDOM.

No. I.—ENGLAND AND WALES.

MARRIAGES—QUARTER ENDED MARCH, 1874.

BIRTHS AND DEATHS—QUARTER ENDED JUNE, 1874.

A.—*Serial Table of* MARRIAGES, BIRTHS, *and* DEATHS, *returned in the Years* 1874-68, *and in the* QUARTERS *of those Years.*

Calendar YEARS, 1874-68:—*Numbers.*

Years	'74.	'73.	'72.	'71.	'70.	'69.	'68.
Marriages No.	—	205,460	201,267	190,112	181,655	176,970	176,962
Births........ ,,	—	831,809	825,907	797,428	792,787	773,381	786,858
Deaths .... ,,	—	494,003	492,265	514,879	515,329	494,828	480,622

QUARTERS *of each Calendar Year,* 1874-68.

(I.) MARRIAGES:—*Numbers.*

Qrs. ended last day of	'74.	'73.	'72.	'71.	'70.	'69.	'68.
March........ No.	41,417	41,209	40,539	36,305	36,455	37,752	36,696
June .... ,,	—	53,332	50,380	48,831	46,720	43,202	45,364
September ,,	—	49,658	49,818	46,536	43,900	43,978	43,509
December ,,	—	61,261	60,530	58,440	54,580	52,038	51,393

(II.) BIRTHS:—*Numbers.*

Qrs. ended last day of	'74.	'73.	'72.	'71.	'70.	'69.	'68.
March........ No.	214,437	216,367	208,752	209,523	206,366	203,775	198,584
June .... ,,	217,605	206,618	208,790	201,165	203,615	188,618	202,839
September ,,	—	203,609	201,746	193,271	192,521	190,394	192,583
December ,,	—	205,215	206,619	193,469	190,285	190,594	192,852

(III.) DEATHS:—*Numbers.*

Qrs. ended last day of	'74.	'73.	'72.	'71.	'70.	'69.	'68.
March........ No.	136,528	132,626	184,952	138,393	143,773	133,096	119,676
June .... ,,	123,990	118,751	120,835	120,793	121,128	118,947	110,010
September ,,	—	114,343	118,927	121,332	124,297	114,644	130,482
December ,,	—	128,283	117,551	134,361	126,131	128,141	120,454

Annual Rates of MARRIAGES, BIRTHS, *and* DEATHS, *per* 1,000 PERSONS LIVING *in the Years* 1874-68, *and the* QUARTERS *of those Years.*

Calendar YEARS, 1874-68:—*General Ratios.*

YEARS............	'74.	Mean '64–73.	'73.	'72.	'71.	'70.	'69.	'68.
Estmtd. Popln. of England *in thousands* in middle of each Year....	23,649,	—	23,356,	23,068,	22,783,	22,501,	22,223,	21,949,
Persons Married	—	16·9	17·6	17·5	16·7	16·1	15·9	16·1
Births	—	35·4	35·6	35·8	35·0	35·2	34·8	35·8
Deaths................	—	22·4	21·2	21·3	22·6	22·9	22·3	21·9

QUARTERS *of each Calendar Year,* 1874-68.

(I.) PERSONS MARRIED :—*Ratio per* 1,000.

Qrs. ended last day of	'74.	Mean '64–73.	'73.	'72.	'71.	'70.	'69.	'68.
March	14·2	13·9	14·3	14·1	12·9	13·2	13·8	13·5
June....................	—	17·2	18·3	17·5	17·2	16·7	15·6	16·6
September	—	16·5	16·9	17·1	16·2	15·5	15·7	15·8
December	—	20·0	20·8	20·8	20·4	19·2	18·6	18·6

(II.) BIRTHS :—*Ratio per* 1,000.

Qrs. ended last day of	'74.	Mean '64–73.	'73.	'72.	'71.	'70.	'69.	'68.
March	36·8	37·1	37·6	36·3	37·3	37·3	37·3	36·4
June....................	36·9	36·1	35·5	36·3	35·5	36·4	34·1	37·2
September	—	34·3	34·6	34·7	33·7	34·0	34·1	34·9
December	—	34·2	34·9	35·5	33·7	33·6	34·1	35·0

(III.) DEATHS :—*Ratio per* 1,000.

Qrs. ended last day of	'74.	Mean '64–73.	'73.	'72.	'71.	'70.	'69.	'68.
March	23·4	24·9	23·0	23·5	24·7	26·0	24·4	21·9
June....................	21·0	21·6	20·4	21·0	21·3	21·6	21·5	20·2
September	—	21·2	19·4	20·5	21·1	22·0	21·5	23·7
December	—	22·2	21·8	20·2	23·4	22·3	22·9	21·8

B.—*Comparative Table of* CONSOLS, PROVISIONS, PAUPERISM, *and* TEMPERATURE *in each of the Nine* QUARTERS *ended June*, 1874.

1	2	3	4	5	6	7	8	9	10
Quarters ending	Average Price of Consols (for Money).	Average Rate of Bank of England Discount.	Average Price of Wheat per Quarter in England and Wales.	Average Prices of Meat per lb. at the Metropolitan Meat Market (by the Carcase), with the *Mean* Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	Pauperism. Quarterly Average of the Number of Paupers relieved on the *last day* of each week.		Mean Temperature.
				Beef.	Mutton.		In-door.	Out-door.	
1872	£		*s.* *d.*	*d.* *d.* *d.*	*d.* *d.* *d.*	*s.* *s.* *s.*			°
June 30	$92\frac{7}{8}$	4·0	56 8	$5\frac{1}{4}$—$7\frac{1}{2}$ $6\frac{3}{8}$	6—$8\frac{3}{4}$ $7\frac{3}{8}$	124—150 137	134,412	724,463	52·8
Sept. 30	$92\frac{4}{8}$	3·5	58 11	$5\frac{1}{4}$—8 $6\frac{5}{8}$	$6\frac{1}{4}$—$9\frac{1}{4}$ $7\frac{3}{4}$	105—133 119	126,377	681,987	61·1
Dec. 31	$92\frac{2}{8}$	5·9	57 3	$5\frac{1}{2}$—8 $6\frac{3}{4}$	6—$8\frac{1}{2}$ $7\frac{1}{4}$	153—187 170	138,648	675,598	45·3
1873									
Mar. 31	$92\frac{3}{8}$	3·9	55 10	$5\frac{1}{2}$—8 $6\frac{3}{4}$	$6\frac{1}{4}$—9 $7\frac{5}{8}$	179—235 207	150,392	703,357	39·4
June 30	$93\frac{3}{8}$	5·2	56 5	6—$8\frac{3}{4}$ $7\frac{3}{8}$	$6\frac{3}{4}$—$9\frac{1}{2}$ $8\frac{1}{8}$	183—242 $212\frac{1}{2}$	135,491	666,126	50·2
Sept. 30	$92\frac{4}{8}$	3·8	61 4	$5\frac{3}{4}$—$8\frac{3}{4}$ $7\frac{1}{4}$	$6\frac{1}{2}$—$9\frac{1}{4}$ $7\frac{7}{8}$	95—120 $107\frac{1}{2}$	127,672	632,417	60·3
Dec. 31	$92\frac{4}{8}$	6·3	61 1	5—$8\frac{1}{2}$ $6\frac{3}{4}$	$5\frac{3}{4}$—$8\frac{1}{2}$ $7\frac{1}{8}$	96—$117\frac{1}{2}$ 107	137,409	625,316	44·2
1874									
Mar. 31	92	3·6	62 2	$5\frac{1}{4}$—$8\frac{1}{4}$ $6\frac{3}{4}$	$5\frac{1}{2}$—$8\frac{1}{4}$ $6\frac{7}{8}$	112—127 $119\frac{1}{2}$	146,082	641,910	41·4
June 30	93	3·4	61 1	5—8 $6\frac{1}{2}$	5—$8\frac{1}{4}$ $6\frac{5}{8}$	135—165 150	133,846	614,738	52·8

C.—*General Average Death-Rate Table:—Annual Rate of Mortality to* 1,000 *of the Population in the Eleven Divisions of England.*

Divisions.	Average Annual Rate of Mortality to 1,000 Living in: Ten Years, 1861-70.	1873. Quarters ending: March.	June.	Sept.	Dec.	1874. Quarters ending: March.	June.
England and Wales	22·4	23·0	20·4	19·4	21·8	23·4	21·0
I. London	24·3	22·7	20·0	21·8	25·3	23·7	19·9
II. South-Eastern counties	19·1	18·8	16·5	15·3	16·3	19·5	17·1
III. South Midland ,, ...	20·2	20·8	17·5	16·5	17·8	20·1	17·5
IV. Eastern counties	20·1	20·9	18·6	17·3	17·7	20·4	18·8
V. South-Western counties	19·9	21·2	18·2	15·0	17·9	21·4	18·8
VI. West Midland ,, ...	21·8	23·6	19·8	18·3	21·5	23·3	20·4
VII. North Midland ,, ...	20·8	22·9	20·1	18·5	19·5	21·6	19·6
VIII. North-Western ,, ...	26·3	26·9	24·1	23·1	24·4	27·4	25·7
IX. Yorkshire	24·0	23·8	22·1	21·8	23·3	23·4	22·5
X. Northern counties	22·7	23·8	22·9	23·5	25·1	26·3	24·2
XI. Monmouthshire and Wales	21·6	23·8	21·7	17·4	21·7	26·0	23·7

D.—*Special Average Death-Rate Table:*—ANNUAL RATE *of* MORTALITY *per* 1,000 *in* TOWN *and* COUNTRY DISTRICTS *of* ENGLAND *in each Quarter of the Years* 1874-72.

	Area in Statute Acres.	Population Enumerated. 1871.	Quarters ending	Annual Rate of Mortality per 1,000 in each Quarter of the Years			
				1874.	Mean '64-73.	1873.	1872.
In 131 Districts, and 57 Sub-districts, comprising the *Chief Towns*	3,183,965	12,892,982	March ..	25·2	27·0	24·5	25·4
			June	22·5	23·1	21·6	22·6
			Sept.	—	23·9	22·0	23·1
			Dec.	—	24·8	24·7	22·2
			Year	—	24·7	23·2	23·3
			Year	—	19·5	18·5	18·6
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly *Small Towns* and *Country Parishes*	34,135,256	9,819,284	March ..	20·9	22·4	21·1	20·9
			June	19·1	19·5	18·8	18·9
			Sept.	—	17·4	16·0	17·0
			Dec.	—	18·6	17·9	17·7

Note.—The three months January, February, March, contain 90, in leap year 91 days; the three months April, May, June, 91 days; each of the last two quarters of the year, 92 days. For this inequality a correction has been made in these calculations, also for the difference between 365 and 365·25 days, and 366 and 365·25 days in leap year.

E.—*Special Town Table:*—POPULATION; BIRTHS, DEATHS; MEAN TEMPERATURE *and* RAINFALL *in the Second Quarter of* 1874, *in* TWENTY-ONE *Large Towns.*

Cities, &c.	Estimated Population in the Middle of the Year 1874.	Births in 13 Weeks ending 4th July, 1874.	Deaths in 13 Weeks ending 4th July, 1874.	Annual Rate to 1,000 Living during the 13 Weeks ending 4th July.		Mean Temperature in 13 Weeks ending 4th July, 1874.	Rainfall in Inches in 13 Weeks ending 4th July, 1874.
				Births.	Deaths.		
Total of 21 towns in U. K.	7,618,655	71,009	43,424	37·4	22·9	51·9	3·86
London	3,400,701	30,038	16,873	35·5	19·9	53·5	3·60
Portsmouth........................	120,436	966	604	32·2	20·1	—	4·80
Norwich	82,257	644	461	31·4	22·5	51·0	3·94
Bristol........................	192,889	1,666	1,022	34·7	21·3	—	—
Wolverhampton........................	70,896	722	387	40·9	21·9	52·7	3·56
Birmingham	360,892	3,868	2,078	43·0	23·1	52·4	5·69
Leicester........................	106,202	1,110	491	42·0	18·6	52·9	3·66
Nottingham	90,894	814	487	35·9	21·5	52·4	3·48
Liverpool........................	510,640	4,970	3,506	39·1	27·6	51·8	3·06
Manchester........................	355,339	3,635	2,574	41·1	29·1	—	—
Salford........................	133,068	1,513	840	45·6	25·3	51·3	3·74
Oldham	86,281	850	629	39·5	29·3	—	—
Bradford........................	163,056	1,697	988	41·8	24·3	51·0	2·71
Leeds	278,798	2,844	1,868	40·9	26·9	51·7	2·60
Sheffield	261,029	2,651	1,609	40·8	24·7	52·0	2·91
Hull........................	130,996	1,300	664	39·8	20·3	50·2	3·44
Sunderland........................	104,378	1,048	522	40·3	20·1	—	—
Newcastle-on-Tyne	135,437	1,366	840	40·5	24·9	—	—
Edinburgh	211,691	1,714	1,235	32·5	23·4	—	—
Glasgow	508,109	5,228	3,703	41·3	29·3	51·0	4·93
Dublin........................	314,666	2,365	2,043	30·2	26·1	52·7	3·90

F.—*Divisional Table:*—MARRIAGES *Registered in Quarters ended* 31*st March*, 1874-72; *and* BIRTHS *and* DEATHS *in Quarters ended* 30*th June*, 1874-72.

1	2	3	4	5	6
DIVISIONS. (England and Wales.)	AREA* in Statute Acres.	POPULATION, 1871. (*Persons.*)	MARRIAGES in Quarters ended 31st March.		
			1874.	1873.	1872.
		No.	No.	No.	No.
ENGLD. & WALES.... *Totals*	37,319,221	22,712,266	44,262	41,209	40,557
I. London	75,362	3,254,260	6,523	6,582	6,661
II. South-Eastern	3,994,431	2,167,726	2,971	2,965	2,915
III. South Midland	3,201,325	1,442,654	1,740	1,758	1,738
IV. Eastern	3,211,441	1,218,728	1,596	1,572	1,562
V. South-Western	4,981,170	1,880,777	2,823	2,784	2,919
VI. West Midland	3,945,460	2,720,669	4,763	4,948	4,770
VII. North Midland	3,535,445	1,406,935	2,404	2,296	2,274
VIII. North-Western	1,998,914	3,389,044	7,343	7,646	7,468
IX. Yorkshire	3,702,384	2,395,569	5,155	4,971	4,862
X. Northern	3,547,947	1,414,234	3,254	3,203	2,943
XI. Monmthsh. & Wales	5,125,342	1,421,670	2,845	2,484	2,445

7	8	9	10	11	12	13
DIVISIONS. (England and Wales.)	BIRTHS in Quarters ended 30th June.			DEATHS in Quarters ended 310th June.		
	1874.	1873.	1872.	1874.	1873.	1872.
	No.	No.	No.	No.	No.	No.
ENGLD. & WALES.... *Totals*	231,998	206,618	208,711	132,654	118,751	120,914
I. London	30,038	28,381	29,141	16,873	16,690	17,096
II. South-Eastern	17,757	16,535	17,791	9,722	9,259	9,375
III. South Midland	12,284	12,091	12,840	6,515	6,445	6,703
IV. Eastern	10,234	9,807	10,373	5,826	5,735	5,464
V. South-Western	14,451	14,655	14,825	8,907	8,584	8,994
VI. West Midland	26,831	25,804	25,714	14,339	13,771	14,510
VII. North Midland	13,637	12,952	12,626	7,081	7,198	7,574
VIII. North-Western	36,225	33,494	34,014	22,717	21,035	20,456
IX. Yorkshire	25,025	23,842	23,379	14,210	13,703	14,469
X. Northern	16,730	15,823	15,018	9,136	8,468	8,423
XI. Monmthsh. & Wales	14,393	13,234	12,990	8,664	7,863	7,850

* These are revised figures, and may be found to differ somewhat from those before published.

G.—*General Meteorological Table, Quarter ended June,* 1874.

[Abstracted from the particulars supplied to the Registrar-General by JAMES GLAISHER, ESQ., F.R.S., &c.]

1874. Months.	Temperature of										Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
	Air.			Evaporation.		Dew Point.		Air—Daily Range.		Water of the Thames				
	Mean.	Diff. from Average of 103 Years.	Diff. from Average of 33 Years.	Mean.	Diff. from Average of 33 Years.	Mean.	Diff. from Average of 33 Years.	Mean.	Diff. from Average of 33 Years.		Mean.	Diff. from Average of 33 Years.	Mean.	Diff. from Average of 33 Years.
	°	°	°	°	°	°	°	°	°	°	In.	In.	Gr.	Gr.
April ...	50·0	+4·0	+2·9	46·9	+2·9	43·6	+3·9	20·3	+1·7	50·5	·284	+·030	3·3	+0·4
May ...	50·5	−2·0	−2·4	46·7	−2·4	42·8	−2·6	22·5	+2·0	54·9	·275	−·027	3·2	−0·2
June ...	58·0	−0·2	−1·0	53·5	−1·1	49·5	−1·2	22·8	+1·8	62·5	·355	−·016	3·9	−0·3
Mean ...	52·8	+0·6	−0·2	49·0	−0·2	45·3	−0·3	21·9	+1·8	56·0	·305	−·004	3·5	0·0

1874. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Horizontal Movement of the Air.	Reading of Thermometer on Grass.				
										Number of Nights it was			Lowest Reading at Night.	Highest Reading at Night.
	Mean.	Diff. from Average of 33 Years.	Mean.	Diff. from Average of 33 Years.	Mean.	Diff. from Average of 33 Years.	Amnt.	Diff. from Average of 59 Years.		At or below 30°.	Between 30° and 40°.	Above 40°.		
			In.	In.	Gr.	Gr.	In.	In.	Miles.				°	°
April ...	79	0	29·704	−·066	539	− 4	1·4	−0·3	306	6	20	4	22·3	47·0
May ...	76	0	29·803	+·023	541	0	0·4	−1·7	226	15	9	7	20·2	51·2
June ...	74	0	29·939	+·128	535	+ 3	2·4	+0·5	247	1	13	16	26·9	55·0
Mean ...	76	0	29·815	+·028	538	0	Sum 4·2	Sum −1·5	Mean 260	Sum 22	Sum 42	Sum 27	Lowest 20·2	Highst 55·0

Note.—In reading this table it will be borne in mind that the sign (−) minus signifies below the average, and that the sign (+) plus signifies above the average.

The mean temperature of April was 50°·0, being 4°·0 higher than the average of 103 years, and 2°·9 higher than that of the preceding 33 years. It was higher than in 1873 by 4°·1, and higher than in 1872 by 1°·7.

The mean temperature of May was 50°·5, being 2°·0 lower than the average of 103 years, and 2°·4 lower than that of the preceding 33 years, it was 0°·1 and 0°·4 colder than in 1873 and 1872 respectively.

The mean temperature of June was 58°·0, being respectively 0°·2 and 1°·0 lower than the averages of 103 years, and the preceding 33 years; it was 0°·9 below the corresponding value for 1873, and 1°·2 below that of 1872.

The mean high day temperatures were 3°·7 and 0°·1 higher than their respective averages in April and June, and 1°·3 lower in May.

The mean low night temperatures were respectively 3°·3 and 1°·7 below their averages in May and June, and 2°·1 above in April.

The mean daily ranges of temperature were greater than their respective averages in April, May, and June by 1°·7, 2°·0, and 1°·8 respectively.

H.—*Special Meteorological Table, Quarter ended 30th June,* 1874.

1 NAMES OF STATIONS.	2 Mean Pressure of Dry Air reduced to the Level of the Sea.	3 Highest Reading of the Thermometer.	4 Lowest Reading of the Thermometer.	5 Range of Temperature in the Quarter.	6 Mean Monthly Range of Temperature.	7 Mean Daily Range of Temperature.	8 *Mean Temperature of the Air.*	9 Mean Degree of Humidity.
	in.	°	°	°	°	°	°	
Guernsey	29·669	70·0	39·0	31·0	26·3	10·7	51·8	86
Osborne	29·647	86·5	34·2	52·3	41·2	19·4	53·6	85
Barnstaple	29·658	79·0	34·0	45·0	39·0	16·2	55·5	75
Royal Observatory	29·685	83·7	30·5	53·2	47·3	21·9	52·8	76
Royston	29·704	84·4	27·8	56·6	48·7	23·2	51·8	79
Norwich	29·650	80·5	30·5	50·0	42·3	18·2	50·7	88
Llandudno	29·673	81·0	35·3	45·7	35·2	17·4	52·8	77
Derby	29·684	80·0	31·0	49·0	40·7	18·3	52·1	74
Stonyhurst	29·670	72·0	31·4	40·6	38·2	18·5	50·0	82
Bradford	29·707	73·8	33·4	40·4	33·7	15·3	51·0	78
North Shields	—	72·0	31·8	40·2	35·6	13·1	48·6	75

10 NAMES OF STATIONS.	11 WIND. Mean estimated Strength.	12 WIND. Relative Proportion of N.	13 E.	14 S.	15 W.	16 Mean Amount of Cloud.	17 RAIN. Number of Days on which it fell.	18 RAIN. Amount Collected.
								in.
Guernsey	1·2	11	6	5	9	3·9	28	5·70
Osborne	0·4	7	9	5	8	5·4	35	4·94
Barnstaple	1·1	7	5	8	10	3·5	27	4·07
Royal Observatory	0·3	8	8	6	9	6·3	30	4·19
Royston	—	12	5	5	8	6·6	30	3·64
Norwich	—	10	6	7	7	—	33	4·09
Llandudno	0·8	5	10	5	10	4·9	28	4·44
Derby	—	6	8	6	10	—	—	3·66
Stonyhurst	—	9	6	7	9	6·9	48	5·70
Bradford	0·9	9	5	4	13	5·8	38	3·35
North Shields	1·6	8	8	5	10	5·7	35	4·02

No. II.—SCOTLAND.

MARRIAGES, BIRTHS, AND DEATHS IN THE QUARTER ENDED 30TH JUNE, 1874.

I.—*Serial Table:—Number of Births, Deaths, and Marriages in Scotland, and their Proportion to the Population estimated to the Middle of each Year, during each Quarter of the Years* 1874-70 *inclusive.*

	1874.		1873.		1872.		1871.		1870.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
1st Quarter—										
Births	29,837	3·45	30,210	3·52	29,506	3·47	28,902	3·43	28,665	3·44
Deaths........	20,775	2·40	21,443	2·50	21,245	2·50	19,756	2·34	22,198	2·66
Marriages ..	6,777	0·78	6,618	0·77	5,820	0·68	5,415	0·64	5,647	0·67
Mean Temperature	40°·9		38°·1		40°·7		39°·1		36°·9	
2nd Quarter—										
Births	32,295	3·73	31,283	3·64	30,726	3·61	30,583	3·63	30,636	3·67
Deaths........	19,640	2·27	19,931	2·32	19,045	2·24	18,715	2·22	18,027	2·15
Marriages ..	6,730	0·78	6,690	0·78	6,398	0·75	5,946	0·70	5,770	0·69
Mean Temperature	49°·53		49°·2		49°·2		48°·7		51°·0	
3rd Quarter—										
Births	—	—	28,975	3·38	29,181	3·43	28,689	3·40	28,263	3·39
Deaths........	—	—	17,072	1·99	16,692	1·96	16,835	2·00	16,573	2·03
Marriages ..	—	—	5,816	0·68	5,891	0·69	5,424	0·64	5,318	0·63
Mean Temperature	—		55°·4		55°·8		56°·3		57°·1	
4th Quarter—										
Births	—	—	29,270	3·41	29,460	3·46	27,953	3·32	27,826	3·26
Deaths........	—	—	18,411	2·15	18,759	2·20	19,338	2·29	17,367	2·08
Marriages ..	—	—	7,606	0·88	7,471	0·88	7,181	0·85	7,119	0·85
Mean Temperature	—		42°·7		41°·8		41°·3		39°·6	
Year—										
Population.	3,462,916		3,430,923		3,399,226		3,367,922		3,336,707	
Births	—	—	119,738	3·49	118,873	3·49	116,127	3·45	115,390	3·46
Deaths........	—	—	76,857	2·24	75,741	2·22	74,644	2·22	74,165	2·22
Marriages ..	—	—	26,730	0·76	25,580	0·75	23,966	0·71	23,854	0·71

II.—*Special Average Table:—Number of Births, Deaths, and Marriages in Scotland and in the Town and Country Districts during the Quarter ending 30th June,* 1874, *and their Proportion to the Population; also the Number of Illegitimate Births, and their Proportion to the Total Births.*

Registration Groups of Districts.	Population.		Total Births.			Illegitimate Births.		
	Census, 1871.	Estimated to Middle of 1874.	Number.	Per Cent.	Ratio. One in every	Number.	Per Cent.	Ratio. One in every
SCOTLAND	3,360,018	3,462,916	32,295	3·73	27	2,733	8·5	11·8
Principal towns	1,068,556	1,136,154	11,012	3·88	26	965	8·8	11·4
Large „	332,180	354,335	3,981	4·49	22	237	6·0	16·8
Small „	778,164	796,900	7,740	3·89	26	635	8·2	12·2
Mainland rural	1,049,114	1,045,027	8,799	3·37	30	853	9·7	10·3
Insular „	132,004	130,500	763	2·34	43	43	5·6	17·8

Registration Groups of Districts.	Population.		Deaths.			Marriages.		
	Census, 1871.	Estimated to Middle of 1874.	Number.	Per Cent.	Ratio. One in every	Number.	Per Cent.	Ratio. One in every
SCOTLAND	3,360,018	3,462,916	19,640	2·27	44	6,730	0·78	129
Principal towns	1,068,556	1,136,154	7,670	2·70	37	2,736	0·96	104
Large „	332,180	354,335	2,459	2·78	36	768	0·87	115
Small „	778,164	796,900	4,240	2·13	47	1,421	0·71	140
Mainland rural	1,049,114	1,045,027	4,714	1·35	74	1,714	0·49	203
Insular „	132,004	130,500	557	1·71	59	91	0·28	360

III.—*Bastardy Table:—Proportion of Illegitimate in every Hundred Births in the Divisions and Counties of Scotland, during the Quarter ending 30th June,* 1874.

Divisions.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.
SCOTLAND	8·5						
Northern	8·1	Shetland	3·5	Forfar	10·9	Lanark........	7·3
		Orkney	6·3	Perth	9·4	Linlithgow .	9·2
North-Western	7·3	Caithness	12·7	Fife	6·8	Edinburgh .	7·6
North-Eastern	12·7	Sutherland....	7·1	Kinross	4·6	Haddington	7·3
		Ross and Cromarty	7·0	Clackmannan	7·8	Berwick	7·6
East Midland..	9·2					Peebles........	5·9
West Midland.	6·7	Inverness	7·5	Stirling	7·4	Selkirk	11·3
		Nairn	5·5	Dumbarton ..	5·1	Roxburgh ..	10·5
South-Western	7·2	Elgin	11·0	Argyll	7·5	Dumfries	12·1
South-Eastern.	7·9	Banff	11·4	Bute	5·8	Kirkcudbright ..	12·9
		Aberdeen	13·3	Renfrew........	5·7		
Southern	13·1	Kincardine....	13·6	Ayr................	8·1	Wigtown	18·7

IV.—*Divisional Table:*—Marriages, Births, *and* Deaths *Registered in the Quarter ended* 30*th, June,* 1874.

1 DIVISIONS. (Scotland)	2 Area in Statute Acres.	3 Population, 1871. (*Persons.*)	4 Marriages.	5 Births.	6 Deaths.
		No.	No.	No.	No.
Scotland .... *Totals*	19,639,377	3,360,018	6,730	32,295	19,640
I. Northern	2,261,622	127,191	116	778	503
II. North-Western........	4,739,876	166,351	144	989	732
III. North-Eastern	2,429,594	393,199	653	3,298	1,772
IV. East Midland	2,790,492	559,676	1,165	4,957	3,138
V. West Midland	2,693,176	251,088	415	2,356	1,386
VI. South-Western........	1,462,397	1,183,218	2,828	13,865	8,587
VII. South-Eastern	1,192,524	475,523	1,073	4,391	2,580
VIII. Southern	2,069,696	203,772	336	1,661	942

No. III.—GREAT BRITAIN AND IRELAND.

Summary *of* Marriages, *in the Quarter ended* 31*st March,* 1874; *and* Births *and* Deaths, *in the Quarter ended* 30*th June,* 1874.

Countries.	[000's omitted.]		Marriages.	Per 1,000 of Population.	Births.	Per 1,000 of Population.	Deaths.	Per 1,000 of Population.
	Area in Statute Acres.	Population, 1871. (*Persons.*)						
		No.	No.	Ratio.	No.	Ratio.	No.	Ratio.
England and Wales	37,325,	22,712,	41,417	1·8	217,605	9·5	123,990	5·4
Scotland	19,639,	3,360,	6,777	2·0	32,295	9·6	19,640	5·8
Ireland	20,323,	5,412,	9,481	1·8	38,580	7·1	24,128	4·4
Great Britain and Ireland	77,287,	31,484,	57,675	1·8	288,480	9·1	167,758	5·2

Note.—The numbers against Ireland represent the marriages, births, and deaths that the local registrars have *succeeded* in recording; but how far the registration approximates to absolute completeness, does not at present appear to be known. It will be seen that the Irish ratios of births and deaths are much under those of England and Scotland, but the ratio of marriages, which was also formerly under the English and Scotch, now approximates to the latter.—Ed. *S. J.*

Trade of United Kingdom, 1874-73-72.—*Distribution of* **Exports*** *from United Kingdom, according to the Declared Real Value of the Exports; and the Declared Real Value (Ex-duty) of* **Imports** *at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (*excluding Gold and Silver*), Imported from, and Exported to, the following Foreign Countries, &c. [000's omitted.]	First Six Months.					
	1874.		1873.		1872.	
	Imports from	*Exports to*	Imports from	*Exports to*	Imports from	*Exports to*
I.—Foreign Countries:	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	13,897,	7,380,	13,142,	6,347,	13,327,	4,257,
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	23,825,	21,548,	23,182,	25,974,	21,628,	26,270,
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	29,803,	12,741,	30,138,	12,743,	26,742,	11,989,
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	2,653,	4,660,	3,238,	5,349,	3,120,	4,511,
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	8,958,	5,548,	11,242,	7,292,	11,655,	6,715,
Northern Africa; viz., Tripoli, Tunis, Algeria and Morocco	970,	285,	610,	222,	526,	175,
Western Africa	717,	441,	866,	588,	868,	470,
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Mooria Islands	236,	208,	104,	64,	103,	126,
Indian Seas, Siam, Sumatra, Java, Philippines; other Islands	1,942,	849,	1,230,	650,	1,109,	662,
South Sea Islands	37,	20,	33,	14,	80,	10,
China, including **Hong Kong**	3,735,	5,095,	4,585,	3,714,	5,538,	5,717,
United States of America	43,346,	15,827,	40,249,	19,822,	32,102,	21,903,
Mexico and Central America	2,872,	507,	838,	635,	950,	538,
Foreign West Indies and Hayti........................	976,	1,202,	1,836,	2,094,	2,024,	1,577,
South America (Northern), New Granada, Venezuela, and Ecuador	631,	1,629,	782,	1,819,	684,	1,723,
" **(Pacific)**, Peru, Bolivia, Chili, and Patagonia	5,506,	2,112,	4,951,	3,036,	5,354,	2,537,
" **(Atlantic)** Brazil, Uruguay, and Buenos Ayres	5,166,	6,436,	5,712,	6,501,	7,445,	5,948,
Whale Fisheries; Grnlnd., Davis' Straits, Southn. Whale Fishery, & Falkland Islands	33,	12,	34,	—	32,	6,
Total—Foreign Countries	145,303,	86,500,	142,182,	96,864,	133,287,	95,134,
II.—British Possessions:						
British India, Ceylon, and Singapore	19,588,	13,642,	18,873,	12,489,	23,080,	10,396,
Austral. Cols.—N. So. W., Vict., and Queensld.	9,306,	5,771,	7,137,	5,689,	7,546,	4,387,
" " So. Aus., W. Aus., Tasm., and N. Zealand	4,886,	3,197,	4,143,	2,387,	3,977,	1,613,
British North America	1,484,	3,906,	1,557,	3,619,	898,	4,106,
" W. Indies with Btsh. Guiana & Honduras	3,245,	1,584,	3,075,	1,646,	3,266,	1,623,
Cape and Natal	1,993,	2,030,	1,863,	2,053,	1,824,	1,815,
Brt. W. Co. of Af., Ascension and St. Helena	267,	477,	162,	388,	251,	439,
Mauritius	692,	336,	998,	309,	1,020,	322,
Channel Islands	419,	388,	313,	343,	366,	360,
Total—British Possessions............	41,880,	31,331,	38,747,	28,923,	42,228,	25,061,
General Total ....£	187,183,	117,831,	180,929,	125,787,	175,515,	120,095,

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* *i.e.*, British and Irish produce and manufactures.

Trade of United Kingdom, 1873-69. — *Value of the Total Exports of* **Foreign** *and* **Colonial** *Produce and Manufactures to each Foreign Country and British Possession.*

Merchandise Exported to the following Foreign Countries, &c. [000's omitted.]	Declared Value.			Computed Value.	
	1873.	1872.	1871.	1870.	1869.
I.—Foreign Countries.	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark, & Iceland, & Heligoland	4,891,	4,638,	4,491,	4,597,	4,382,
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland and Belgium ...	24,301,	26,257,	25,683,	18,200,	20,762,
Western Europe; viz., France, Portugal, (with Azores, Madeira, &c.), and Spain, (with Gibraltar and Canaries)	14,710,	12,673,	16,956,	11,351,	12,838,
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	1,713,	1,888,	2,115,	1,624,	1,623,
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	579,	737,	626,	573,	502,
Northern Africa; viz., Tripoli, Tunis, Algeria, and Morocco	53,	39,	46,	45,	51,
Western Africa	288,	260,	199,	247,	208,
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Mooria Islands	—	—	2,	35,	2,
Indian Seas, Siam, Sumatra, Java, Philippines; other Islands	14,	21,	21,	19,	36,
South Sea Islands	—	—	2,	2,	1,
China, including **Hong Kong**	537,	657,	547,	554,	420,
United States of America	3,124,	5,171,	4,165,	2,971,	2,163,
Mexico and Central America	235,	102,	179,	167,	67,
Foreign West Indies and Hayti	30,	13,	315,	327,	131,
South America (Northern), New Granada, Venezuela and Ecuador	48,	49,	78,	71,	46,
„ **(Pacific)**, Peru, Bolivia, Chili, and Patagonia	362,	693,	356,	185,	258,
„ **(Atlantic)**, Brazil, Uruguay, and Buenos Ayres	518,	484,	337,	287,	103,
Other countries (unenumerated)	57,	44,	78,	30,	39,
Total—Foreign Countries................	51,460,	53,726,	56,646,	41,283,	43,629,
II.—British Possessions:					
British India, Ceylon, and Singapore	1,082,	1,176,	1,142,	909,	1,073,
Austral. Cols.—New South Wales and Victoria, So. Aus., W. Aus., Tasm., and N. Zealand	1,615,	1,341,	1,062,	837,	970,
British North America	754,	1,131,	855,	800,	751,
„ W. Indies with Btsh. Guiana & Honduras	324,	384,	382,	293,	321,
Cape and Natal	311,	288,	117,	104,	70,
Brt. W. Co. of Af., Ascension and St. Helena....	79,	87,	94,	72,	80,
Mauritius	33,	30,	32,	17,	18,
Channel Islands	156,	155,	173,	158,	138,
Other possessions	16,	13,	6,	21,	11,
Total—British Possessions	4,370,	4,605,	3,863,	3,211,	3,432,
General Total ....£	55,830,	58,331,	60,509,	44,494,	47,061,

IMPORTS. — (United Kingdom.) — **First Five Months** (*January — May*), **1874-73-72-71-70.**—*Declared Real Value* (*Ex-duty*), *at Port of Entry* (*and therefore including Freight and Importer's Profit*), *of Articles of Foreign and Colonial Merchandise Imported into the United Kingdom.*

(First Five Months.) [000's omitted.] FOREIGN ARTICLES IMPORTED.		1874.	1873.	1872.	1871.	1870.
		£	£	£	£	£
RAW MATLS.–*Textile*, &c.	Cotton Wool	26,407,	29,938,	30,457,	30,080,	26,328,
	Wool (Sheep's) ..	11,646,	11,140,	11,087,	8,857,	7,942,
	Silk*	6,362,	5,457,	5,520,	5,892,	8,583,
	Flax	2,132,	1,751,	1,696,	1,207,	1,397,
	Hemp	2,560,	2,579,	2,938,	2,756,	1,684,
	Indigo	1,638,	1,829,	2,174,	1,806,	1,122,
		50,745,	52,694,	53,872,	50,598,	47,056,
" " *Various.*	Hides	1,547,	2,745,	2,558,	1,581,	1,166,
	Oils	1,309,	1,797,	1,856,	1,945,	1,372,
	Metals	1,700,	4,449,	5,139,	3,772,	1,585,
	Tallow	1,044,	1,029,	1,288,	1,225,	927,
	Timber	5,132,	3,554,	2,547,	2,145,	1,162,
		10,732,	13,574,	13,389,	10,668,	6,212,
" " *Agrcltl.*	Guano	993,	743,	315,	1,311,	1,092,
	Seeds	2,689,	2,550,	3,198,	2,955,	732,
		3,682,	3,293,	3,513,	4,266,	1,824,
TROPICAL, &c., PRODUCE.	Tea	2,828,	3,519,	5,186,	5,142,	4,910,
	Coffee	3,362,	2,718,	1,618,	1,724,	1,127,
	Sugar & Molasses	8,536,	7,501,	7,324,	7,201,	6,775,
	Tobacco	1,011,	1,229,	954,	1,216,	544,
	Rice	1,157,	1,121,	860,	475,	264,
	Fruits	938,	808,	992,	788,	519,
	Wines	2,967,	3,432,	3,295,	2,966,	2,084,
	Spirits	1,068,	1,240,	1,010,	1,643,	1,137,
		21,867,	21,568,	21,239,	21,155,	17,359,
FOOD	Grain and Meal.	20,689,	19,149,	15,601,	12,876,	11,799,
	Provisions	10,453,	9,990,	8,320,	7,256,	5,654,
		31,142,	29,139,	23,921,	20,132,	17,453,
Remainder of Enumerated Articles		20,167,	16,345,	15,092,	13,258,	5,986,
TOTAL ENUMERATED IMPORTS		138,335,	136,613,	131,026,	120,077,	95,890,
Add for UNENUMERATED IMPORTS (say)		14,126,	15,100,	10,900,	9,425,	23,972,
TOTAL IMPORTS		152,461,	151,713,	141,926,	129,502,	119,862,

* "Silk," inclusive of manufactured silk, "not made up."

EXPORTS. — (United Kingdom.) — **First Six Months** (*January — June*), **1874-73-72-71-70.** — *Declared Real Value, at Port of Shipment, of Articles of* British *and* Irish *Produce and Manufactures Exported from United Kingdom.*

(Six Months.) [000's omitted.] British Produce, &c., Exported.		1874.	1873.	1872.	1871.	1870.
		£	£	£	£	£
Manfrs.—*Textile.*	Cotton Manufactures..	26,948,	30,633,	30,207,	27,299,	27,391,
	,, Yarn	7,250,	7,733,	7,992,	7,092,	7,306,
	Woollen Manufactures	9,694,	13,373,	15,986,	12,066,	10,760,
	,, Yarn	2,484,	2,622,	3,403,	2,930,	2,740,
	Silk Manufactures........	1,014,	916,	1,137,	976,	1,203,
	,, Yarn	621,	914,	747,	634,	106,
	Linen Manufactures	3,767,	3,951,	4,305,	3,589,	3,670,
	,, Yarn	865,	1,024,	1,042,	1,149,	1,298,
		52,643,	61,166,	64,819,	55,735,	54,474,
,, *Sewed.*	Apparel	1,505,	1,629,	1,416,	1,300,	940,
	Haberdy. and Mllnry.	2,971,	3,161,	3,159,	2,767,	2,252,
		4,476,	4,790,	4,575,	4,067,	3,192,
Metals, &c.	Hardware	2,083,	2,428,	2,331,	1,716,	2,175,
	Machinery	4,656,	4,668,	3,512,	2,407,	2,647,
	Iron	1,661,	19,167,	16,007,	11,779,	10,651,
	Copper and Brass........	1,960,	1,842,	1,760,	1,402,	1,771,
	Lead and Tin	953,	682,	883,	760,	2,373,
	Coals and Culm	5,823,	6,411,	3,970,	2,736,	2,616,
		17,136,	35,198,	28,463,	20,800,	22,233,
Ceramic Manufcts.	Earthenware and Glass	1,369,	1,749,	1,454,	1,219,	1,285,
Indigenous Mnfrs. and Products.	Beer and Ale................	1,452,	1,383,	1,178,	1,045,	1,111,
	Butter	120,	127,	143,	149,	138,
	Cheese	32,	36,	37,	48,	51,
	Candles	91,	96,	112,	87,	56,
	Salt..............................	317,	360,	217,	232,	187,
	Spirits	81,	111,	98,	101,	94,
	Soda	—	1,426,	1,146,	793,	700,
		2,093,	3,539,	2,931,	2,455,	2,337,
Various Manufcts.	Books, Printed	384,	388,	368,	296,	278,
	Furniture	—	—	—	—	96,
	Leather Manufactures	1,635,	1,708,	1,764,	1,968,	1,218,
	Soap	125,	117,	149,	99,	105,
	Plate and Watches	508,	128,	81,	104,	219,
	Stationery	330,	317,	290,	221,	235,
		2,982,	2,658,	2,652,	2,688,	2,151,
Remainder of Enumerated Articles		18,824,	8,397,	7,660,	8,354,	6,291,
Unenumerated Articles................................		18,308,	8,290,	7,049,	6,319,	5,146,
Total Exports....................		117,831,	125,787,	119,603,	101,637,	97,109,

SHIPPING.—(United Kingdom.)—*Account of Tonnage of Vessels Entered and Cleared with Cargoes, from and to Various Countries, during the* **Six Months** *ended June*, 1874-73-72.

Countries from whence Entered and to which Cleared.	Total British and Foreign.					
	1874.		1873.		1872.	
	Entered.	Cleared.	Entered.	Cleared.	Entered.	Cleared.
FOREIGN COUNTRIES.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Russia { Northern ports	350,304	391,344	225,816	318,229	202,426	286,788
Russia { Southern ,, ...	110,497	63,701	215,036	78,806	298,437	122,691
Sweden	458,253	300,920	341,359	278,378	339,877	214,366
Norway	480,280	148,713	468,765	132,974	416,761	120,423
Denmark	86,035	254,952	91,360	244,742	93,155	227,931
Germany	774,140	999,122	817,022	973,656	726,798	1,116,549
Holland	401,142	464,819	408,128	534,354	401,036	508,481
Belgium	407,604	403,350	424,182	458,773	393,045	379,892
France	788,604	1,160,055	868,134	1,221,418	803,615	1,257,710
Spain	428,321	272,973	509,104	296,465	402,381	293,561
Portugal	151,480	150,131	168,748	145,492	138,780	127,553
Italy	117,979	355,436	130,594	355,268	126,677	370,230
Austrian territories	15,084	45,553	11,209	54,200	18,748	99,409
Greece	56,877	30,114	38,041	38,594	52,121	32,429
Turkey (including Wallachia and Moldavia)	111,838	165,939	139,443	160,655	112,868	200,725
Egypt	151,199	257,819	239,895	282,353	255,426	227,776
United States of America	1,954,525	1,065,611	1,540,895	1,090,571	1,245,304	1,146,968
Mexico, Foreign West Indies, and Central America	179,032	206,884	121,625	204,630	123,547	203,880
Brazil	117,943	261,497	120,547	199,143	147,099	186,644
Peru	154,640	40,277	120,150	100,647	81,929	118,269
Chili	45,730	106,798	37,334	102,260	47,074	93,760
China	34,334	9,687	47,261	11,355	55,075	43,759
Other countries	272,180	307,639	240,617	305,865	248,553	292,253
Total, Foreign Countries	7,648,021	7,463,334	7,325,265	7,588,828	6,730,732	7,672,047
BRITISH POSSESSIONS.						
North American Colonies	147,815	370,469	168,003	305,577	118,174	402,009
East Indies, including Ceylon, Singapore, and Mauritius	471,186	553,962	446,611	511,530	506,380	533,075
Australia and New Zealand	169,357	277,055	138,553	219,162	141,461	168,339
West Indies	98,782	68,591	103,206	86,384	105,593	94,802
Channel Islands	122,772	76,200	122,412	80,598	125,055	90,421
Other possessions	105,441	406,780	103,125	376,757	93,604	409,159
Total, British Possessions	1,115,353	1,753,057	1,081,910	1,580,008	1,090,267	1,697,805
TOTAL FOREIGN COUNTRIES AND BRITISH POSSESSIONS.						
Six months ended June, { 1874	8,763,374	9,216,391	—	—	—	—
Six months ended June, { '73	—	—	8,407,175	9,168,836	—	—
Six months ended June, { '72	—	—	—	—	7,820,999	9,369,852

GOLD AND SILVER BULLION AND SPECIE.—IMPORTED AND EXPORTED.—(United Kingdom.)—*Computed Real Value for the* **Six Months** (*January—June*), **1874-73-72.**

[000's omitted.]

(First Six Months.)	1874.		1873.		1872.	
	Gold.	*Silver.*	Gold.	*Silver.*	Gold.	*Silver.*
Imported from:—	£	£	£	£	£	£
Australia	2,874,	9,	4,656,	9,	3,056,	14,
So. Amca. and W. Indies	1,337,	2,024,	1,173,	1,589,	420,	1,211,
United States and Cal.	2,054,	2,047,	1,532,	3,648,	3,798,	2,061,
			7,361,	5,246,	7,274,	3,286,
France	232,	579,	296,	806,	134,	271,
Germany, Holl. & Belg.	161,	1,753,	15,	133,	399,	1,856,
Prtgl., Spain, and Gbrltr.	27,	26,	41,	39,	25,	23,
Mlta., Trky., and Egypt	254,	12,	974,	29,	56,	28,
China	200,	159,	56,	94,	—	60,
West Coast of Africa	44,	9,	40,	—	43,	—
All other Countries	523,	617,	60,	223,	176,	53,
Totals Imported	7,706,	7,234,	8,816,	6,570,	8,107,	5,577,
Exported to:—						
France	1,516,	436,	381,	1,383,	249,	605,
Germany, Holl. & Belg.	932,	200,	5,391,	1,100,	1,925,	324,
Prtgl., Spain, and Gbrltr.	634,	960,	2,902,	124,	960,	182,
			8,674,	2,607,	3,134,	1,111,
Ind. and China (viâ Egypt)	—	25,	808,	1,493,	754,	3,963,
Danish West Indies	—	—	—	—	—	—
United States	8,	2,	101,	2,	—	—
South Africa	4,	10,	187,	39,	879,	72,
Mauritius	—	—	—	—	—	—
Brazil	244,	—	104,	—	262,	—
All other Countries	2,533,	4,979,	1,375,	806,	3,724,	851,
Totals Exported	5,871,	6,612,	11,249,	4,947,	8,753,	5,997,
Excess of *Imports*	1,835,	622,	—	1,623,	—	—
,, Exports	—	—	2,433,	—	646,	420,

REVENUE.—(UNITED KINGDOM.)—30TH JUNE, 1874-73-72-71.

Net Produce in QUARTERS *and* YEARS *ended* 30*th* JUNE, 1874-73-72-71.

[000's omitted.]

QUARTERS, ended 30th June.	1874.	1873.	1874.		Corresponding Quarters.	
			Less.	More.	1872.	1871.
	£	£	£	£	£	£
Customs	4,563,	4,850,	287,	—	4,944,	4,731,
Excise	6,330,	6,287,	—	43,	6,097,	5,462,
Stamps	2,714,	2,645,	—	69,	2,525,	2,377,
Taxes	413,	362,	—	51,	349,	284,
Post Office	1,350,	1,180,	—	170,	1,200,	1,130,
Telegraph Service	300,	100,	—	200,	225,	170,
	15,670,	15,424,	287,	533,	15,340,	14,154,
Property Tax	1,072,	1,169,	97,	—	1,604,	867,
	16,742,	16,593,	384,	533,	16,944,	15,021,
Crown Lands	78,	75,	—	3,	75,	75,
Miscellaneous	853,	1,013,	161,	—	1,374,	1,740,
Totals	17,673,	17,681,	545,	536,	18,393,	16,836,
			NET DECR. £9.			

YEARS, ended 30th June.	1874.	1873.	1874.		Corresponding Years.	
			Less.	More.	1872.	1871.
	£	£	£	£	£	£
Customs	20,052,	20,939,	887,	—	20,539,	19,889,
Excise	27,215,	25,975,	—	1,240,	23,961,	22,984,
Stamps	10,619,	10,067,	—	552,	9,920,	9,122,
Taxes	2,375,	2,350,	—	25,	2,395,	2,310,
Post Office	5,962,	4,800,	—	1,162,	4,750,	4,730,
Telegraph Service	1,410,	890,	—	520,	810,	530,
	67,633,	65,021,	887,	3,499,	62,375,	59,565,
Property Tax	5,594,	7,065,	1,471,	—	9,821,	6,327,
	73,227,	72,086,	2,358,	3,499,	72,196,	65,892,
Crown Lands	378,	375,	—	3,	375,	385,
Miscellaneous	3,722,	3,435,	—	287,	3,695,	4,195,
Totals	77,327,	75,896,	2,358,	3,789,	76,266,	70,472,
			NET INCR. £1,431.			

REVENUE.—United Kingdom.—Quarter ended 30th June, 1874:—

An Account showing the Revenue *and other* Receipts *in the* Quarter *ended* 30*th June*, 1874; *the* Issues *out of the same, and the Charges on the Consolidated Fund at that Date, and the Surplus or Deficiency of the Balance in the Exchequer on the* 30*th of June*, 1874, *in respect of such Charges.*

Received:—

		£
Surplus balance in the Exchequer on the 31st of March, 1874, beyond the amount of the charge on the Consolidated Fund at that date, as per last account		330,970
Income received, as shown in Account I		17,672,521
Amount received in Repayment of Advances for Public Works, &c.		467,138
„ cancelled on account of the Charge on the 31st of March, 1874		3,290
Total		£18,473,919
Excess of the Sums charged on the Consolidated Fund on the 30th June, 1874, payable in September quarter, 1874, above the Balance in the Exchequer at that date, viz.:—		
Excess of Charge in Great Britain	£2,041,183	
Surplus over Charge in Ireland	632,420	
Net deficiency		*1,408,763
		19,882,682

Paid:—

		£
Amount applied out of the Income to *Supply Services*		12,174,060
Charge of the *Consolidated Fund* on the 30th of June, 1874, viz.:—		
Interest of the Permanent Debt	£6,076,475	
Terminable Annuities	285,380	
Principal of Exchequer Bills	9,000	
Interest „	42,096	
The Civil List	101,691	
Other Charges on Consolidated Fund	299,926	
Advances for Public Works, &c.	801,767	
Sinking Fund	92,287	
		7,708,622
Total		£19,882,682

* Charge on 30th June, 1874 (as above)	£7,708,622
Paid out of growing produce in June quarter, 1874	984,980
Portion of the Charge payable in September quarter, 1874	6,723,642
To meet which there was in the Exchequer on the 30th of June, 1874	5,314,879
Net deficiency as above	£1,408,763

BRITISH CORN.—*Gazette Average Prices* (ENGLAND AND WALES), *Second Quarter of* 1874.

[This Table is communicated by the Statistical and Corn Department, Board of Trade.]

Weeks ended on Saturday.	Weekly Average. (Per Impl. Quarter.)					
	Wheat.		Barley.		Oats.	
1874.	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
April 4	60	3	48	9	28	2
„ 11	59	5	48	8	28	3
„ 18	60	6	48	5	28	7
„ 25	60	–	49	11	28	11
Average for April	60	–	48	11	28	5
May 2	62	1	46	6	29	1
„ 9	62	2	47	3	30	10
„ 16	62	1	47	5	29	2
„ 23	62	4	45	11	30	1
„ 30	62	2	47	8	29	1
Average for May	62	2	46	11	29	7
June 6	61	8	45	8	29	11
„ 13	61	4	41	5	30	–
„ 20	60	8	42	–	30	4
„ 27	60	4	42	2	31	2
Average for June	61	–	42	9	30	4
Average for the quarter	61	1	46	3	29	6

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), *for Wednesday in each Week, during the* SECOND QUARTER (*April—June*) *of* 1874.

[0,000's omitted.]

1	2	3	4	5	6	7	
ISSUE DEPARTMENT.					COLLATERAL COLUMNS.		
Liabilities.		Assets.					
Notes Issued.	DATES. (Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.	Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.	
£ Mlns.	1874.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	1874.	Per cnt.
37,10	April 1	11,02	3,98	22,09	26,62	1 April	3½
36,60	,, 8	11,02	3,98	21,60	26,73		
36,49	,, 15	11,02	3,98	21,49	26,43		
36,50	,, 22	11,02	3,98	21,50	26,18		
35,95	,, 29	11,02	3,98	20,95	26,26	29 ,,	4
35,71	May 6	11,02	3,98	20,71	26,68		
35,49	,, 13	11,02	3,98	20,49	26,43		
35,88	,, 20	11,02	3,98	20,88	26,14		
36,03	,, 27	11,02	3,98	21,03	25,77	27 May	3⅓
36,55	June 3	11,02	3,98	21,55	26,05	3 June	3
36,85	,, 10	11,02	3,98	21,85	26,01		
37,62	,, 17	11,02	3,98	22,62	25,63	17 ,,	2½
38,12	,, 24	11,02	3,98	23,12	25,89		

BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18
Liabilities.					DATES. (Wdnsdys.)	Assets.				Totals of Liabilities and Assets.
Capital and Rest.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.		
Capital.	Rest.	Public.	Private.			Govern-ment.	Other.	Notes.	Gold and Silver Coin.	
£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	1874.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
14,55	3,90	9,70	18,74	,39	April 1	13,81	22,31	10,48	,59	47,19
14,55	3,13	6,89	19,68	,35	,, 8	13,80	20,29	9,87	,65	44,60
14,55	3,13	6,69	19,06	,38	,, 15	13,80	19,22	10,06	,75	43,82
14,55	3,14	8,68	17,30	,39	,, 22	13,80	19,20	10,32	,74	44,07
14,55	3,15	14,56	17,99	,37	,, 29	13,80	26,43	9,69	,70	50,62
14,55	3,15	7,11	20,01	,37	May 6	13,80	21,78	9,03	,58	45,19
14,55	3,15	6,89	18,87	,38	,, 13	13,80	20,25	9,06	,73	48,84
14,55	3,16	6,78	18,19	,41	,, 20	13,90	18,72	9,74	,73	43,09
14,55	3,16	7,02	17,99	,36	,, 27	13,91	18,20	10,26	,73	43,09
14,55	3,12	8,05	17,49	,38	June 3	13,90	18,34	10,50	,84	45,59
14,55	3,12	7,69	17,85	,37	,, 10	13,91	18,00	10,84	,85	43,59
14,55	3,13	8,13	18,49	,39	,, 17	13,91	17,79	11,99	1,00	44,70
14,55	3,14	8,76	11,72	,36	,, 24	13,83	17,62	12,22	,85	44,53

LONDON CLEARING; CIRCULATION, PRIVATE AND PROVINCIAL.

The London Clearing, and the Average Amount of Promissory Notes in Circulation in ENGLAND *and* WALES *on Saturday in each Week during the* SECOND QUARTER (*April —June*) *of* 1874; *and in* SCOTLAND *and* IRELAND, *at the Three Dates, as under.*

[0,000's omitted.]

ENGLAND AND WALES.					SCOTLAND.				IRELAND.		
DATES. *Saturday.*	*London:* Cleared in each Week ended *Wednesday.**	Private Banks. (Fixed Issues, 3,89).	Joint Stock Banks. (Fixed Issues, 2,74).	TOTAL. (Fixed Issues, 6,63).	Weeks ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2,76).	£5 and upwards.	Under £5.	TOTAL (Fixed Issues, 6,35).
1874.	£	£	£	£	1874.	£	£	£	£	£	£
April 4	124,85	2,73	2,52	5,25							
„ 11	91,07	2,75	2,53	5,28							
„ 18	122,58	2,73	2,47	5,21	April 18	1,83	3,71	5,54	3,84	2,97	6,82
„ 25	107,47	2,73	2,48	5,21							
May 2	116,59	2,72	2,49	5,22							
„ 9	119,11	2,71	2,49	5,20							
„ 16	102,34	2,71	2,45	5,16	May 16	2,07	3,88	5,97	3,93	2,94	6,87
„ 23	141,75	2,45	2,27	4,72							
„ 30	141,75	2,45	2,27	4,72							
June 6	129,65	2,49	2,27	4,76							
„ 13	98,23	2,53	2,28	4,82	June 13	2,32	4,09	6,41	3,70	2,83	6,53
„ 20	136,26	—	—	—							
„ 27	97,70	—	—	—							

* The Wednesdays *preceding* the Saturdays.

FOREIGN EXCHANGES.—*Quotations as under,* LONDON *on Paris, Hamburg and Calcutta;—and New York, Calcutta, Hong Kong and Sydney, on* LONDON.

1	2	3	4	5	6	7	8	9
				Calcutta.				
DATES.	London on Paris. 3 m.d.	London on Hamburg. 3 m.d.	New York. 60 d. s.	India Council. 60 d. s.*	At Calcutta on London. 6 m. d.	Hong Kong. 6 m. d.	Sydney. 30 d. s.	Standard *Silver* in bars in London pr. oz.
1874.			per. cnt.	*d.*	*d.*	*d.*	per cnt.	*d.*
April 7	25·30	20·57	485	$22\frac{5}{8}$	$23\frac{5}{8}$	51	1pm. to $\frac{1}{4}$ dis	$58\frac{3}{4}$
„ 18	25·30	20·58	485	$22\frac{1}{2}$	—	$51\frac{3}{4}$	1pm. to $\frac{1}{2}$ dis	$58\frac{7}{16}$
May 2	25·25	20·55	487	$22\frac{3}{4}$	$23\frac{5}{8}$	$52\frac{1}{4}$	$\frac{1}{2}$pm. to $\frac{1}{2}$ dis	59
„ 16	25·27$\frac{1}{2}$	20·60	487$\frac{1}{2}$	$22\frac{1}{2}$	$23\frac{5}{16}$	$52\frac{3}{8}$	—	$58\frac{3}{4}$
June 6	25·25	20·60	488	$22\frac{3}{8}$	$22\frac{7}{8}$	$52\frac{7}{8}$	—	$58\frac{1}{2}$
„ 20	25·27$\frac{1}{2}$	20·62	488	$22\frac{1}{4}$	$22\frac{3}{8}$	$51\frac{1}{2}$	—	$59\frac{1}{8}$

* Bankers' drafts.

ADDITIONS TO THE LIBRARY DURING THE QUARTER ENDED 30TH SEPTEMBER, 1874.

Donations.	By whom Presented.
Medical Statistics, with especial reference to Cholera and Syphilis. By Frederic J. Mouat, M.D., F.R.C.S.	The Author
Mittheilungen aus dem Gebiete der Statistik. Zwanzigster Jahrgang ii, iii Heft. Wien, 1873	K. K. Statistische Central Commission, Wien
Statistisches Jahrbuch, für das Jahr 1872. Heft i, ii, vi, ix.	"
Statistique de la Grèce: Recensement de la Population. En 1870. Exposé sur les Resultats du Recensement. 2 copies. Athènes, 1874	Chef de Division Directeur du Bureau de Statistique
Fifth Annual Report of the Massachusetts Bureau of Statistics of Labour (February, 1874). Boston	The Hon. David A. Wells
Annual Report of the Comptroller of the Currency to the First Session of the Forty-Third Congress of the United States (December, 1873). Washington	"
Annual Report on the State of the Finances to the Forty-Third Congress (December, 1873). Washington	"
The Currency of Mauritius. By J. I. Cohen de Lissa, F.S.S.	The Author
Annual Report of the Trustees of the Astor Library of the city of New York. Albany	Trustees
The History of Paper Money in the Province of Massachusetts before the Revolution; with an Account of the Land Bank and the Silver Bank. By E. H. Derby	American Statistical Association at Boston, Massachusetts, U. S. A.
The Mauritius Almanac and Colonial Register for 1874. By John B. Kyshe, F.S.S. Mauritius	Colonial Secretary, Mauritius
Statistical Tables of the Dublin Metropolitan Police for Year 1873	Her Majesty's Stationery Office
Bulletins of the American Geographical Society of New York, Nos. 4 to 6, Session 1873-74	The Society
Annual Meeting of the American Geographical Society, 13th January, 1874	"
Memorial Bulletin of the American Geographical Society of Dr. Livingstone, 23rd April, 1874	"
The Memorial of the President and Council of the Royal Society of Edinburgh, to the Chancellor of the Exchequer, praying that certain MS. Tables of Logarithms may be printed	"
East India (Guaranteed Railways), No. 221	India Office
" (Meteorological Department), No. 185	"
" (Appointments), No. 184	"
Abyssinian Expedition (Vote of Credit), No. 199	"
Public Works (India), No. 81	"
Reports of the Tea and Tobacco Industries in India. Part 1	"
East India Products, No. 982	"
Further Correspondence between the Government of India and the Secretary of State in Council relative to the Famine in Bengal. Part 5, No. 955	"

Donations—Contd.

Donations.	By whom Presented.
Sugar, &c. (June, 1874), British and Foreign Imported. No. 200	India Office
Vital Statistics, Bengal. Annual Returns of the European Army of the Bengal Presidency from 1858-69	Dr. J. L. Bryden, Surgeon-Major Bengal Army, &c., &c.
Vital Statistics, Bengal, for the ten years 1860-69. Report on Age and Length of Service as affecting the Sickness and Mortality of the European Army	"
Vital Statistics, Bengal. Cholera Epidemics of Recent Years, viewed in relation to former Epidemics, 1817-72	"
Statistics of the Trade of the Port of Calcutta, 1830-62. By H. W. J. Wood, Calcutta	Rev. J. Long
Statistical Report of the Health of the Navy for 1872. No. 154	Admiralty
Illustrations of Venezuela, 1873. By J. M. Spence, F.R.G.S., &c.	W. E. A. Axon, Esq., F.S.S.
Venezuela: its People and its Products. By J. M. Spence, F.R.G.S., &c.	"
Meteorologia Italiana. Vol. ix, 1873. Roma	Ministero d'Agricoltura, Industria, e Commercio
Meteorologia Italiana. Parts for January and February, 1874, of vol. x	"
Zeitschrift des K. Sachsischen Statistischen Bureaus. Vols. xvii and xviii for 1871-72. Dresden	Le Rédacteur du Bulletin du Bureau de Statistique au Ministère de l'Intérieur de la Saxe-Royale
Dritter Jahresbericht des Landes-Medicinal Collegiums über das Medicinalwesen im Königreich Sachsen auf das Jahr 1869. Dresden	"
Leipzigs Bevölkerung. Mittheilungen des Statistischen Bureaus der Stadt Leipzig. Nos. 6 and 7	"
Kalender und Statistisches Jahrbuch für das Königreich Sachsen auf das Jahr 1874. Dresden	"
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Vol. XXXVII.] [Part IV.

JOURNAL OF THE STATISTICAL SOCIETY,

DECEMBER, 1874.

INAUGURAL ADDRESS *delivered at the* SOCIETY'S ROOMS, *Somerset House Terrace, King's College, London, on* TUESDAY, 17*th November*, 1874. *By the* PRESIDENT, WILLIAM A. GUY, ESQ., M.B., F.R.S., F.R.C.P., *&c.*

THIS our Session of 1874-75 will be remembered for many years to come as that in which we again take up our abode in premises of which we have but an uncertain, possibly only a brief, tenure. We spent, as some of us are aware, the first few years of our corporate existence in St. Martin's Lane, close to the National Gallery, as tenants of the Royal Society of Literature. We then, for a short time, rented apartments in Regent Street; and lastly, for a much longer term, as tenants of the London Library, the rooms in St. James's Square which we have just left; and now we have made our fourth move, and commenced our fourth tenancy.

This brief retrospect would be imperfect, did I not remind you that after we had occupied the rooms in St. James's Square nearly ten years, we had the good fortune to secure as sub-tenants our esteemed friends the Institute of Actuaries, a society established and maintained with objects akin to our own, and making use of figures, and of calculations based upon them, for the highest practical purposes to which it is possible to apply them. This happy association of twenty years' standing has not been dissolved; the two Societies again find shelter under the same roof; and their Fellows will, I am sure, cordially unite with me in the hope that the tie which has so long united us may never be dissevered.

One obvious and welcome advantage resulted from this union of interests. The Institute, by sharing our rental in St. James's Square (which had been raised from 150*l.* to 200*l.* per annum), and contributing towards certain current expenses, made a very acceptable addition to our income; and so helped to bring about that improved condition of our finances which, for my present purpose, is sufficiently set forth by the two facts that, whereas for thirty years our funded property remained stationary at less than 900*l.*, it now stands at upwards of 1,500*l.*, and that our treasurer will certainly be able to defray the cost of our move from St. James's Square, and of the additional furniture and fittings needed for these, our larger and more commodious premises, without trenching on our capital.

You will infer, from what I have just stated, that the chief difficulty with which we have always had to contend, has been that of obtaining suitable accommodation—a difficulty increasing with the rapid and progressive growth of our library, and the equally progressive, but still more rapid, increase in the value of house property. As early as the year 1839, a resolution was moved at the general anniversary meeting, "That it is desirable to change the "apartments of the Society," and yet three years later the Council, in their eighth annual report, bewail "the difficulty of finding suit-"able accommodation in a convenient situation," in consequence of the rent required having been "so far beyond the means of the "Society as to put a stop to every negotiation;" adding, however, that an opening had lately presented itself of soon procuring "excellent accommodation at a moderate rent under the crown." In this expectation the Council were disappointed; but in 1844 (as appears from their tenth annual report) they had succeeded in renting rooms in Regent Street, which they continued to occupy till, in 1846, they were able to congratulate the Fellows on their success in obtaining the apartments in St. James's Square which, after a tenancy of twenty-eight years, we have just vacated.

I have alluded to these passages in our past history, at the risk of being thought tedious, chiefly because I wish you fully to appreciate the difficulties the Executive Committee have had to encounter in their recent search after suitable apartments in the neighbourhood of St. James's Square, or near the group of Scientific Societies for which Government has made provision in Burlington House. After using every possible exertion, and resorting to all the usual means of obtaining information, we were obliged to confess ourselves utterly defeated; in one set of cases by the inadequacy of the accommodation offered us, in another by the exorbitant rental, or equally exorbitant first outlay of capital, demanded of us.

From this position of difficulty and embarrassment we have been happily and most unexpectedly relieved, at least for a time. The Council of King's College, having acceded to the request of Canon Barry, the Principal of the College, to be allowed to quit his residence, we have become his tenants during his tenure of office, and for three months thereafter.

And now a few words as to the relative advantages of such a site as we wished to secure for ourselves, and of that on which we are now assembled. Had we succeeded at the West End, and taken up our abode somewhere in the neighbourhood of Burlington House and of the Geographical Society, which has established itself at the corner of Savile Row, we should have had for neighbours a group of societies with which we have never yet had occasion to put ourselves into communication; for there is little, if anything, in common between their studies and ours. Here, on the contrary, we are almost within speaking distance of the Registrar-General and his able and accomplished staff; and have for our nearest neighbours the great educational establishment of King's College, and the many government offices which together make up the department of Inland Revenue. Nor are we very far removed from the Social Science Association, the Charity Organisation Society, and the Society of Arts—tenants of the Adelphi—with each of which we are connected by stronger bonds of sympathy than those which unite us to the Societies and Associations that devote themselves to the culture of the physical sciences. Let me add that we have relinquished our position at the West End only to bring ourselves near to the very centre of London, where the access from the two great thoroughfares of the Strand and Thames Embankment is easy, the communication between the north and south of London direct, and the distance from the railway stations most frequented by Fellows who live out of town, inconsiderable.

Those who attach importance to the *genius loci*, will scarcely need to be reminded that, within the memory of many now present, the best portions of Somerset House may be said to have been the classic ground of art, literature, and science. For the principal entrance to the building was for many years guarded on the one side by the Royal Academy, on the other by the Royal Society and the Society of Antiquaries, the Royal Academy having given place to the Registrar-General; and the two societies, with the Astronomical and Geological Societies, their neighbours, having now taken their departure to Burlington House, a new suite of offices have been provided for the Registrar-General, and increased accommodation for the Audit Office. Nor in speaking of the *genius loci*, and of art, literature, and science, but especially of science, ought I to omit all mention of King's College, with which I have had the honour of being connected for a term now approaching forty years. Suffice it to mention the names of Daniell and Wheatstone, of Miller and Hardwich, in connection with the art of electrotyping, the electric telegraph, the photograph, and the stereoscope—of each of which the Royal Museum (once the depository of Babbage's calculating machine) contains many curious illustrations. Many a time have I seen the laboratory of the college brighten up, as it were, under the genial smile of our lamented Professor Daniell, responding to some bright thought of the Faraday, whom, with such becoming modesty, he always acknowledged as his master, or to some new invention from the fertile brain of Professor, now Sir Charles, Wheatstone. Let me add that one of our founders, Richard Jones, first Professor of Political Economy in King's College, was as remarkable for sound doctrine as for the eloquence with which he expounded it.

If thus much may be said in praise of our new site, something of commendation may be added in respect of our house itself. It is as well adapted to the purposes of our two Societies as it is ill-suited for a residence, or as an adjunct to a place of education. Here, for the first time, the two Societies have separate offices easy of access; and large and lofty enough to accommodate no inconsiderable part of their respective libraries (certainly all works of common or frequent reference). Of the room in which we are now met you can judge for yourselves. By dispensing to a great extent with the bookcases which lined the walls of our meeting-room in St. James's Square, we have made the most of the space at our command, can accommodate a larger number of Fellows, and, without resorting to artificial means, secure a better ventilation. In arranging these rooms for our meetings, I have greatly profited by the suggestions of my friend Mr. Sopwith. For use in the daytime we have a quiet place of study well lighted, supplied with books of reference, and adorned with works of art, to which I shall presently have to refer. If there are any present who think that our new apartments admit of improvement, I would have them understand that we are precluded from making structural changes; and that if there are other defects, they exist not for want of care or thought on the part of the Executive Committee, but as the result of oversights which there is still time to correct.

I may add that if, on any special occasion, we should require the use of a larger room or theatre, or of some suite of rooms (say for the entertainment of our Fellows and friends, by a *soirée* or *conversatione*), we may confidently appeal to the Council of King's College for the needful accommodation.

This confidence, indeed, is fully justified by our experience of the liberality and public spirit shown by the Council in times past. It is now fourteen years ago that the Government found itself in a position of considerable embarrassment, and the Council of this Society in one of no little difficulty, by the undertaking to which we had been committed, to hold the Fourth International Statistical Congress here in London. There was then no suitable building at the disposal of the Government, and no fund had been provided out of which to defray the expenses of a temporary erection. From this state of perplexity the Government was relieved by the Council of King's College, who placed their commodious suites of rooms and theatres at its disposal, and enabled us to make every necessary arrangement for the reception of our foreign guests. It was in the entrance hall of the College that the late Prince Consort, our Patron, was received with fitting honours, and in its large meeting-room that he welcomed our visitors in the opening address which satisfied all who heard it that he held his high position among us not merely by right of his exalted rank, but by virtue of a large knowledge and firm grasp of the science which we cultivate. It was on that occasion, as many present this evening well recollect, that he paid a graceful compliment to the distinguished man we have so lately lost, I mean M. Quetelet, of Brussels; whom he greeted, not only as the President of the first Statistical Congress, but as one from whom he had had the privilege to receive his first instruction in the higher branches of the mathematics. Need I add that it was to His Royal Highness that Quetelet dedicated the first edition of his work on "The Theory of Probabilities applied to the "Moral and Political Sciences;" and, in doing so, bore testimony to the fact, that the princes of his royal house had always been protectors of science and friends of progress, adding the graceful tribute, to the justice of which we are all witnesses, "I have been "in the happy position to appreciate the fact that these hereditary "qualities have not degenerated."

This gracious recognition on the part of our lamented patron, of one whom we count among the founders of our Society, and the brightest ornaments of our science, gives, I think, peculiar significance to the place which their portraits occupy on these walls. Noble pupil and accomplished teacher hang side by side in suitable companionship with another distinguished founder and constant friend, the inventor of the calculating machine, Charles Babbage.

But, already, previous to the holding of the International Statistical Congress, our Society had entered into friendly relations with King's College; for it was on the 23rd January, 1860 (the very year of the Congress) that the "Tooke Professorship of Economic Science "and Statistics"—founded the year previous out of a fund collected in honour of Thomas Tooke, another of our founders and fast friends, through the exertions of one of my esteemed predecessors, Mr. Newmarch—first came into operation. On the evening of that day (the 23rd January) Mr. Thorold Rogers, a Fellow of this Society, the first Professor under the Tooke endowment, delivered the opening lecture of his first course.

You see, then, that the Statistical Society and King's College are no strangers to each other; that they have long since established amicable relations; and that there is every reason to expect that the two institutions will continue to be, not merely near neighbours, but cordial friends.

Our future, as I have already told you, has in it an element of uncertainty. We have not yet attained to that *fixity of tenure* which we have made more than one effort to grasp. Possibly we may yet find what we seek in this very place. It may be that the responsible duties of Principal of King's College can be discharged with complete efficiency by a non-resident, and that we may find ourselves in a condition to make an acceptable offer to the College for a greatly prolonged, if not a permanent tenure of the building in which we are now met. But if in this not unreasonable expectation we are doomed to disappointment, we may still find that permanence which we desire in some arrangement for bringing under one roof the scientific societies for which the Government has, as yet, made no provision. I need not remind our Fellows that a movement for bringing about this desirable amalgamation was set on foot, some time since, by this Society, which, if it cannot lay claim to the praise of success, may yet take to itself the honour of the initiative. From these exceptional topics, arising out of our recent change of quarters, I pass on to those which naturally form the staple of an annual address.

I again congratulate you on an increase of numbers—the addition having reached in 1873 the unprecedented number of 110; to which the present year has already made material additions. This increase brings with it, as necessary and welcome consequences, augmented pecuniary resources and enlarged means of usefulness; but with corresponding obligations on the Council and its Executive Committee to exert themselves to the utmost, especially as I indicated a year ago, for the improvement of the *Journal* and the *Library*. In both directions the Council and Committee have laboured to some purpose; and have not allowed even the exertions necessary to transfer the property of the Society from its old to its new quarters to stop them. The fruits of these efforts are before you in the shape of a third Index to the contents of the *Journal* for the decade ending 1872, and in the proof sheets of an Almanack, now in preparation, adapted to the special objects of the Society. This work if issued towards the end of each year, and enlarged and improved as our experience may suggest, will be found to embody information useful alike to the Officials of the Society and to the Fellows at large. The Index and the Almanack, I need scarcely remind you, have followed fast upon the admirable "Digest of the "English Census of 1871," by Mr. James Lewis, which the Council caused to be forwarded, free of cost, to every Fellow of the Society. The work doing in the direction of the library will make itself felt gradually; and I leave it to my successor in office to give you a full account of the result of our efforts.

But, though I am able to congratulate you on a large increase of numbers, since last I had the pleasure of addressing you, and though the total number of ordinary members now approaches 600, I would not have you satisfied with this state of things. For those among us who most fully appreciate the work the Society is doing, and that which, with larger resources, it would be able to undertake, feel justified in expecting a larger measure of support. Devoting itself, as it does to the study of the Condition and Prospects of Society, by the only means which can truly ascertain and illustrate them, it ought to count its supporters, not by hundreds but by thousands. The two Houses of Parliament, with upwards of 1,000 members, engaged in the practical work of legislation, may be reasonably expected to contribute more than seventy members (about one in fifteen of their number) to our list. Some addition may also be expected to the eighteen Fellows of the Institute of Actuaries; and the learned professions, one with another, ought surely to add something considerable to the sixty members now on our books. Nor, if our aim and objects were rightly understood, could the clergy of all denominations allow themselves to be represented by so small a number of Fellows. The example of Bishops Blomfield and Wilberforce, early Fellows of the Society, might reasonably be expected to make itself felt, even if our studies failed of commending themselves by their practical utility in reference to the highest interests of humanity. I am not aware that this Society has ever done anything to inspire with distrust either the statesman or the religious teacher. On the contrary, we are singularly free from the temptation to give offence to sensitive minds. We are not tempted, as many cultivators of the physical sciences are, to handle such burning questions as the antiquity of the world, and the origin of life, and of man; nor have we ever given encouragement to those who find in the recurrence of similar figures year by year in our records of births, deaths, and marriages, of accidents, suicides, and crimes, ground for calling in question the existence of a will in man—a fallacy I have done something to expose in the pages of our *Journal.* I will say no more on this topic, but will content myself with the expression of my deliberate opinion that the studies of this Society are precisely those which divide men the least, and unite them the most.

One duty which devolves on those who have the honour to occupy the position I now fill, is that of reminding the Fellows of their several societies of the losses recently sustained by death—may be to speak with regret of men dying in the prime of life, after giving promise of future usefulness and distinction. Happily I have no such case to record. Those of whom I have to speak as removed from our list of Fellows since last I addressed you were, for the most part, men who had outlived the anciently assigned age of decrepitude, three score years and ten. They had reached an age at which they might reasonably expect to rest from their labours. There have been thirteen deaths, and these have been distributed among our ordinary and honorary Fellows in the proportion of nine to four. The larger list comprises the names of four original members, Mark Phillips, Leaf, Marshall (names well known in the world of manufacture and commerce), and of Denis le Marchant; of Lord Dalhousie, Silvain Van de Weyer, and Dr. Neil Arnott; the smaller list those of M. David, of Copenhagen (whom many of us well recollect as representing Denmark in the Congress of 1860); M. Holst, of Christiania; Professor De la Rive, of Geneva; and Adolphe Quetelet, of Brussels.

The latest loss we have sustained is that of Sir Denis le Marchant, son of the distinguished Peninsular officer who fell at Salamanca, and brother of an eminent diplomatist. He died in the 80th year of his age, after serving the State in many public offices. He was for twenty years Chief Clerk to the House of Commons, and retired in 1871, receiving a formal vote of thanks from the House, and bearing with him the esteem and good wishes of its members, and of a larger circle of private friends. As the pains-taking and conscientious editor of "Horace Walpole's Memoirs of George III," Sir Denis le Marchant was well known to the world of literature.

Dr. Neil Arnott, after taking an active and useful part in the affairs of the London University and of other public institutions, and showing a princely liberality in the encouragement of physical science, passed away in his 86th year, full of years and honour leaving behind him, as free gifts to the public, his "Elements of "Physics," his stove, ventilating valve, and water-bed, monuments of his talent as author and inventor. As the contriver of the water-bed he will ever be held in grateful remembrance by many a sufferer solaced, perhaps restored to health and life, by that most simple and happy invention.

In Professor De la Rive, of Geneva, Switzerland has lost a man eminent alike as cultivator and teacher of science. He was the friend of Davy and Faraday, and the author of a work on electricity, translated into many foreign languages. His name stood on the lists of foreign members of the French Academy of Sciences and of our own Royal Society; and his general ability and high *status* among his countrymen was recognised in his selection, in 1860, by the Federal Council of Switzerland to represent them in England when their security was menaced by the annexation of Savoy to France.

It was in this same year 1860 (the year of the Fourth International Congress) that M. Silvain Van de Weyer offered himself for election as an ordinary Fellow of our Society; that he might more efficiently take part in the organisation of the congress, especially in those arrangements that required the sanction and co-operation of His Royal Highness the Prince President. M. Van de Weyer died at the age of 72, in this his country of adoption. By profession a lawyer, he became distinguished in turn as scholar, litterateur, diplomatist, and statesman. His many works cover a wide field, treating of law, education, morals, philosophy, charity and its organisation, and affairs administrative and political. He held in succession several important public offices, was Minister of the Interior in Belgium in 1845-46, Envoy and Minister Plenipotentiary to this country from 1851 to 1855; and he was one of the deputation charged to offer the Crown of Belgium to His Royal Highness Prince Leopold of Saxe-Coburg, in 1831. He has left behind him a name that may be fitly associated with that of his distinguished fellow countryman, Adolphe Quetelet.

Of Quetelet I have already spoken incidentally as one of the founders of this Society; and my friend Dr. Mouat has paid him a worthy tribute of praise in the pages of our *Journal*.* He died at Brussels on the 17th of last February (the month in which he was born), having nearly completed his 79th year; and, on the 20th of the month, his remains were transferred from the hall of the Observatory, where they had lain in state, to the church of St. Gudule, and thence to the cemetery, with almost regal honours. The "Moniteur Belge," after rehearsing his official appointments as Director of the Royal Observatory, perpetual Secretary of the Royal Academy, President of the Central Commission of Statistics, and Vice-President of the Administrative Council of the Royal Library, and taking note of the fact that he was a foreign member of the French Institute, of the Royal Societies of London and Edinburgh, and of most of the scientific societies of Europe, gives a long list of the representatives of royalty, of his native city, Gand, of the many public institutions and societies with which he was more or less closely connected, of the ministers of foreign powers and presidents of foreign societies, as also of personal friends, and men of every class of society, who came together to pay the last tribute of respect, to one who had combined in a rare degree the highest administrative talent with the most successful culture of sciences the most diverse. The eloquent addresses spoken at his grave seemed to sound the praises not of one man but of several; so many and so various were the labours which filled up the sixty years that followed his appointment of professor of mathematics at the early age of 18—labours which demanded a rare combination of great natural gifts carefully cultivated, with indefatigable industry. What, and how much, he did to advance our knowledge of geometry and mathematics, of astronomy and physics, of meteorology and terrestrial magnetism, I leave to others to point out. We recognise in him the founder of that science of man himself, which finds its only fitting expression in figures of arithmetic. His "Physique Sociale" was the first systematic attempt to apply the methods and formulæ of the mathematician to the whole circle of observations which have the living man for their object, his physical growth and development, his intellect and morals, his vices and his crimes: in a word, all that he is, does, and suffers, from the cradle to the grave. Of this man, so richly endowed, so industrious, so learned, so skilful, so original, I cannot speak, as many now present might do, from intimate personal knowledge, though I well remember him as a foremost figure among the distinguished men who gathered round the Prince President at the Congress of 1860. His friends could tell you of the perfect respect and affectionate regard with which he inspired them, and bear willing witness to the truth of the words uttered by one who knew and loved him, that "as a man of science he was "admired, as a public character respected, in private life beloved."

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* Vol. xxxvii, part 1, p. 114.

I have more than once had occasion to speak of Quetelet as one of the Founders of our Society; and I may now add that the Council, acting on my suggestion, have recognised in his recent death a fitting occasion, not merely for doing honour to him, but for associating his name with a scheme for endowing the Society with portraits of some of the most distinguished of his coadjutors. The Council having voted the sum of ten guineas for this purpose, and several Fellows having intimated their readiness to subscribe, I felt that I was justified in arranging with Mr. Piercy, the artist, for full-sized portraits in crayon of Quetelet and Babbage, adding a portrait of our patron, the late Prince Consort. If the amount subscribed will justify a further outlay we shall find in Henry Hallam, Thomas Tooke, G. R. Porter, and Colonel Sykes (I omit many distinguished names*) worthy subjects for an artist's pencil. Should the subscription exceed the amount required to obtain portraits of those whom the Council may select, I have suggested that the surplus be devoted to the purchase of statistical, historical, or political works bearing the names of these our founders.

I have still to advert to one subject, in respect of which I have to confess a personal disappointment. You will remember that at our ordinary meeting in January, 1873, I submitted to the Fellows a paper on "John Howard as Statist," in which I endeavoured (not I hope without success) to show that he who is usually known as *Howard the Philanthropist* might with at least equal justice be designated as *Howard the Statist;* and, as

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* See the list in full in Dr. Farr's Inaugural Address at p. 412 of vol. xxxiv.

1873 was the centenary of that felicitous appointment of Sheriff of Bedford, which supplied him both with motive and opportunity to enter on his great career of prison and social reformation, the Council of this Society were induced to sanction the founding of a Howard Medal, to be awarded year by year to the author of the best essay on some subject in social statistics, giving always a preference to some one of the many matters in which he had shown an interest. For this year, 1874 (the centenary of that in which Howard received the thanks of the Houses of Parliament for his great service rendered to the State), it seemed natural to select some subject connected with prisons. Accordingly the first subject chosen was "The State of Prisons and the "Condition and Treatment of Prisoners in the Prisons of England "and Wales, during the last half of the Eighteenth Century, as set "forth in Howard's 'State of Prisons' and work on 'Lazarettos.'" Though the applications to our Secretary for information were very numerous, no essay has been sent in. Possibly would-be candidates were deterred by a difficulty in procuring copies of Howard's works. Be this as it may, I confess to a disappointment in that I shall not have the pleasure of placing in the hands of some successful and meritorious candidate the bronze medal which lies on the table. Let me hope that my successor may be more fortunate. The subject which it is my duty to announce for next year ought to prove attractive. It relates to one of the great topics (perhaps the greatest) of the day—cottage improvement (Howard's business at Cardington more than a century ago). The essays are to be sent in on or before the 30th day of June, 1875; and the medal, if awarded, will be presented by my successor on the anniversary of this our opening day. The title of the essay is:—

"The State of the Dwellings of the Poor in the Rural Districts "of England, with special regard to the Improvements that have "taken place since the middle of the Eighteenth Century; and "their Influence on the Health and Morals of the Inmates."

Having now touched on all the topics that arise out of our recent change of quarters, or relate to the current incidents and business of the Society, I ask your attention while I offer some remarks on the Condition and Prospects of Society, which we have always made the subject of our study. I begin by observing how large a meaning must needs attach to this simple word *society*. It obviously embraces all conditions of men from the highest to the lowest, all ranks and classes, not only here in England, but on the Continent of Europe, in the States of America, in our distant colonies and possessions. Nor is there any limit as to time. We study the past that we may compare it with the present, we track the progress of the nations from year to year, and speculate on their future by the aid of the facts drawn from the past and present. We do not suffer ourselves to be indifferent to anything which affects the well-being of man as the living unit of society. The State holds his life sacred, and deems it a duty to protect it against all forms of injury, and it guards his property with almost equal care. Hence all protective laws and regulations, and all the human agents by whom they are administered come under our scrutiny. We see that the life about which the State is so solicitous, cannot be maintained without the unbroken supply of many articles of food, fuel, and clothing, without the erection and maintenance of dwellings supplied at least with water and means and appliances for the removal of refuse matters. And thus there are opened before us other wide fields of study. But that the human being thus supplied with the means of living may live healthily, we must extend our study to all departments of that comprehensive branch of knowledge known as Sanitary Science, and herein to the standards and tests by which to measure, compare, and judge the health of various sections of the people. We shall be invited to consider and discuss this important question at our next ordinary meeting. Again, the living unit whom we make the object of our study is no passive agent, but a being of free choice, who must exert himself that he may live, or, as a sad alternative for us, throw himself on the industry of others; or, even if he make the better choice, he may undo the work of his own hands, by unthrift, intemperance, and manifold misconduct. These considerations, therefore, open out to us other wide domains of study—all the fruits of industry and all the aids and appliances by which labour is made fruitful, with occupations in all their endless variety, manufacture, trade wholesale and retail, commerce, and intercommunication. And yet again, behind this industry lie the motive-forces of the mind, conscious necessity of exertion, intelligence, and practised skill, with some preparation at least afforded by such simple elements of knowledge as reading, writing, and counting. Hence arises our interest in instruction and education, and their many modes and methods; our interest in art in each of its many forms; our interest, too, in that higher education which has to do with morals and religion.

These are but slight indications of the extent and variety of the topics to which our attention may at any time be called by our Fellows, or their friends, in papers read at our ordinary meetings. Indeed, as the Fellows of this Society are well aware, there is no subject that interests individuals or nations, that concerns man in the mass, can be illustrated by figures, and can, at the same time, keep itself clear of the taint of party strife and of religious dogmatic controversy which we are not prepared to study and discuss, to test and criticise.

But what society, it may be asked, is equal to these things? We answer no single society, not even any conceivable group of societies. In this respect we do but resemble the Royal Society, which is always ready to receive contributions that reach a certain standard of merit, from the cultivators of every branch of physical science, and of every mathematical and logical method by which those sciences may be made more exact, more comprehensive, more true and faithful representatives of nature.

I have already alluded to our fortunate immunity from the temptation to discuss those subjects which are most prone to excite angry passions. But it ought to be understood that we are not shut out from the free expression of opinion on any of the causes which may have contributed to bring about some painful numerical contrast between one group of persons and another living under like conditions. If, for instance, in towns found to differ widely in their rate of mortality, there were found also some foreign element of population coinciding in relative numbers with the rate in question; or if the same were established in relation to certain classes of crimes, we should not allow ourselves to be deterred from giving expression to what we deemed the truth by fear of giving offence to such foreign element of population, whether the numerical facts pointed to race, or to peculiar and distinctive religious tenets, as the true cause. Again, though we have no direct business with religious dogmas, we should not refuse to consider, as matters of fact and numerical statement, the numbers of the various religious sects, and of those bodies of men and women withdrawn from full participation in the business of life in obedience to some religious custom or obligation.

If, instead of assuming the human unit to be gathered into groups or classes, in order to form a just idea of the vast extent of our field of inquiry, we select for consideration some one or more of the leading subjects with which the Statist is conversant, such as population, or wealth, or commerce, or education, or poverty, or crime, we are made equally sensible of the length, width, and depth of our pursuits. Say that population is our chosen topic, and that we start with the population of these kingdoms. It exceeds 32 millions; and if we add to this number those British-born subjects who inhabit our own colonies, and those persons of foreign extraction who, in case of war, might be counted on for sympathy and help, we get as the basis and starting point of our inquiry, some 40 millions of souls, somewhat more than the population of France, somewhat less than that of now-united Germany. The first question which, as Englishmen, we should wish to solve if we could, is, whether this number of people is sufficient to supply the means of offence and defence should a serious contest unhappily arise. Could we now, as in the long war that ended in 1815, reasonably count on coming out of the contest unscathed, with India still in our possession, our colonies still in our own hands, the seas kept sufficiently open and safe to allow of the free importation of food, and the free export of those manufactures by which we purchase it? Again, we cannot but view with special interest that allied question, whether that part of our population which we keep armed and trained for our defence against aggression, bears a due proportion to our necessities on the one hand, and the number of our people on the other. The importance of this inquiry must be felt by every lover of peace; for he knows well that if England would enforce her own sincere preference of peace to war it must be by making and keeping herself so strong in the face of any probable combination of foes, that not even the most captious of her critics can accuse her of advocating peace through a craven fear of consequences, instead of for its own dear sake. Then (for I am still speaking of population as a subject of inquiry) what an interest attaches to the further estimate of the numbers of the alien races subject in India and elsewhere to the British crown —to the numbers absolutely and relatively to the peoples subject to other empires, and to the total estimated population of the globe! But even if we restrict our inquiry to the 32 million inhabitants of the United Kingdom, how many questions of vital interest and importance suggest themselves in respect of them. Is this number to be deemed excessive—excessive in reference to our limited extent of territory, excessive in reference to the wealth that circulates among them? If the answer must be in the affirmative, shall we try to lessen population by encouraging emigration on the one hand, and discouraging immigration on the other, or shall we adopt a policy of complete inaction and absolute non-interference? But it may be that the answer should be in the negative; that is to say, that the population measured by the wealth which circulates from hand to hand, and sets its many industries in ceaseless motion, is scanty and susceptible of large increase. Need I say that there are very strong indications that the latter alternative is the true one: indications stronger far than those which carried conviction to the mind of De Foe when he wrote his able and sensible tract, "Giving Alms "no Charity, and Employing the Poor a Grievance to the Nation." In our day, as in his, the wages of skilled labour have risen to a height which renders it possible for the artisan to earn in half the week what will keep him and his for the remainder of it, supply himself and family with what he deems needful, and still leave a large surplus for intoxicating liquors. In our days, as in his, it is hard to hire labour and difficult to retain it; in our days, still more than in his, a succession of tramps and vagrants falsely professing a willingness to labour and an inability to get work, create, as they pass from house to house, and village to village, and town to town, and alas! that I should have to add, from union workhouse to union workhouse, and from one prison to another, an utterly false impression of over-population, just as a few actors disguised as soldiers circulating round the stage of a theatre, quickly entering at one wing and passing out at the other, create the illusion of an army. And while these wandering tribes are fostering our hypochondriac fancies about over-population, the dole-giver, unteachable, and irreclaimable, is doing his very best to justify our fears by importing from abroad the half-witted Savoyard, and settling among us the worst specimens of humanity to be found in the whole world. It is these slovenly promoters of all the vices, these patrons of criminal destitution, these cruel enemies of decent and virtuous poverty, who cannot be made to see or feel that the pence dropped into the hands of organ-grinders and wandering minstrels collect as certainly into a fund for promoting the importation of hordes of lazy imbeciles, and perpetuating a race of dangerous mendicant-thieves, as the penny and halfpenny stamps dropped one by one into our letter-boxes are gathered into a welcome addition to our revenue, counting by many hundreds of thousands of pounds. It is one function of this Society to set forth and illustrate this order of facts.

These considerations bear on that important section of the large question of population which treats of the quality rather than of the quantity of the human material by which nations are built up.

There is another grand question of population—the mathematical laws of its increase—with which Malthus, one of the Founders of this Society, made us familiar. Of this topic suffice it to say that a larger experience than that which fell to his lot has robbed it of much of its importance, and postponed its further discussion to a far distant future, when the earth's surface, bearing ever richer and richer crops, fed by the products of the combustion of inexhaustible supplies of coal, and many a productive material now wasted, shall be replenished with people, and be as full of the human element as England, or Belgium, or China, is now.

Passing now from population to health, I recognise in it a topic that touches very closely the Condition and Prospects of Society; and one which branches out into a greater number of distinct inquiries than any other to which, as statists, we have to direct our attention. We have to consider health as it is affected by ancestral antecedents, by personal habits, by locality, by occupation, by wealth poverty and destitution, by municipal management and State legislation. We study disease in general as a great impoverisher, disorganiser, and demoraliser, whether it attacks house-holds, or public institutions, or armies, or fleets: we study special maladies with an interest proportioned to their fatality, the permanent injuries they inflict, and the tendency they have to spread from person to person. We are specially interested in the causes by which they are produced, particularly in the overcrowding that has so large a share in the production of scrofula, consumption, and degraded mental organisations, and in the uncleanness with which it is so generally associated—an uncleanness which is certainly the nurse of many destructive maladies, and probably the parent of one. We know what a special interest attaches to fever, our acute pestilence, and consumption, our chronic plague; what special importance to water supply, drainage, and ventilation. In all these matters we are interested, in all of them figures of arithmetic play an important part; may I not add that in respect of all of them the universal methods of logical research find their application and their abundant reward? And here I am reminded of the curious questions which offer themselves for solution when we attempt to measure by figures the sanitary condition of a group of persons occupying some defined district or pursuing some special occupation. The influence of occupation upon health is a division of the principal subject which forms the staple of many a bulky treatise. But there is one consideration that lends to all that concerns the preservation and improvement of the health of the people a peculiar interest. The subject borders upon, and indeed blends itself with, the large subject of morals on the one side and production on the other. For the measures which may be said to lie at the very root of a healthy life, are those also that promote the cleanliness that is said to be next to godliness, and the self-respect without which there can be no virtue. And, on the other hand, the measures in question are intimately bound up with the question of our food-supply. The slovenly methods of disposing of waste products to which the manufacturer is naturally tempted to resort, and the still more slovenly and most unseemly modes of getting rid of the offensive refuse of our towns, have issued in the pollution of rivers and water-courses, which might be made to abound in fish. And just as the manufacturer, placed under legal compulsion, soon found that his waste products (like the dust of the bookbinder's floor, or the waste paper of the photographer) might be converted into gold and silver, so will the authorities of the towns most assuredly profit by a like compulsion, and find that the refuse hitherto a source of pollution to our rivers and of disease to our people, will assert its fertilising power and make many a desert spot to blossom like the rose, and many a barren soil to yield abundant harvests. Doubtless in the times that are past, we have created for ourselves serious embarassment. The fertilising element is so diluted as to cause some practical difficulty in applying it to the soil, and this difficulty may be said to reach its culminating point here in London. But it is one that will disappear before a serious and resolute determination to deal with it. We shall probably have to incur the cost of an open cutting from London to the Maplin Sands, enclose, plant and cultivate the land adjacent, and discharge into the sea only that portion, if any, which cannot be turned to productive account. The fact that freshly formed sewage gives out no offensive or injurious gases, and has only a slightly diffusive animal odour, robs this mode of procedure of all reasonable objection, while another possible objection —that of expense—might be overcome by availing ourselves of the labour of criminals, working within successive strips of land securely fenced, and sleeping in travelling vans of corrugated iron, a material already so largely used in prison construction. Prison labour is, I think, better employed in works such as this than in handicrafts which compete with outside labour; and I may add, that the citizens of London may fairly claim the free disposal for municipal purposes of the labour of their own criminal population. Are we not, in this matter of prison labour, wrong in wishing to show a direct result in money? May not works of improvement and reclamation prove to be the most profitable use to which such labour can be applied?

But it is not only by the system of water-carriage in use in the metropolis and most of our large cities that we contrive to combine pollution with waste. What we do wholesale in their case, we do in detail in the country village and small town. By holes dug in the ground for the reception of offensive matters we contrive to lose much valuable manure altogether, or we cause it to percolate into the surrounding soil and pollute wells and springs of water. For this two-fold evil we might (acting on the analogy of our legislation respecting the pollution of rivers) find a quick and certain remedy. It is one that I have often suggested in conversation, and now venture to insist upon here. I mean a short enactment inflicting a heavy fine on any builder or landlord digging any cesspool after a certain date, and a like fine upon any one who, after another defined date, shall not have emptied and filled in any cesspool now in existence.

Having now briefly indicated the large fields of inquiry suggested by the two leading questions of population and sanitary science, I will turn in the last place to that other large and deeply interesting topic connected with the condition and prospects of society, which has for its staple the lower classes of the community—those classes by whom the remainder, and of that remainder the poor who border most nearly upon them—suffer most, in purse, in comfort, and in morals.

And here, *in limine*, I would insist on the expediency of drawing a distinct line of demarcation between poverty and destitution—

the poor and the destitute; just as, if I were treating of the mental training of the young, I should insist on not confounding instruction with education, the knowledge which books can give with the development of character, that has its source much more in example than in precept, in the incidents of that family life (happily the rule in England), in which falsehood and viciousness and the spirit of rebellion render themselves odious as much by the inconvenience they occasion, as by their demerit, and all the virtues commend themselves as much by practical utility as by their essential loveliness.

Again, I insist on the expediency of distinguishing between *poverty* and *destitution*, and I will also try briefly to indicate some of their distinguishing features. Poverty, then, I take to be a something decent, retiring, modest, respectable, far removed from luxury, but no stranger to humble household comforts, nor to the nameless refinements that cluster round industry, cleanliness, and thrift; shrinking from dependence, not through pride, but from a deep abiding sense of the duty and dignity of honest labour, and yet gratefully accepting such occasional aid as its precarious condition may render necessary; cherishing health and every wholesome habit as its friend, fearing disease as its worst foe, holding education, and knowledge, and morality, and religion, in respect—a something, in a word, which I know not that a wise man would wish to see exchanged for a condition of ease and affluence. But, on the other hand, there is a poverty (if we insist on retaining the word) which is ragged, filthy, and squalid, the companion of idleness, misconduct, and crime—a poverty to which the most common comforts and decencies of life are unknown; which has substituted for that forethought and care for the future, which every lesson of our life teaches us, an utter indifference and recklessness; a poverty which accepts assistance without gratitude, and squanders bounty without remorse, which is most difficult of access for any purpose of improvement, physical, moral, or religious—in a word, the most hopeless of conditions. This is the *destitution* of which I have been speaking, this is that *penury and want of things* which the judicious author of the "Ecclesiastical Polity" recognised as the great barrier, the first impediment, set up against reformation and improvement. These are his wise words on this momentous subject: "All men "desire in this world to lead an happy life. The life is led most "happily wherein all virtue is exercised without impediment or let. "The apostle, in exhorting men to contentment, although they have "in this world no more than very bare food and raiment, giveth us "thereby to understand, that if we should be stripped of all these "things without which we might possibly be, yet these must be left; "that destitution in these is such an impediment, as till it be re-

"moved, suffereth not the mind of man to admit any other care." It was this destitution, especially when it found its expression in the squalid dwelling, that the excellent Bishop Blomfield (one of the Founders of our Society) took many occasions of pointing out as the chief foe to a virtuous life. I will quote a sentence or two spoken by this good and truly practical man—words worthy of the occasion (it was the thanksgiving for the removal of the first attack of cholera) and of the place (St. Paul's Cathedral):—"The want of a decent and cleanly habitation is one "of the chief evils which oppress the poor; neatness, order, and "comfort are unknown in their miserable and overcrowded dwellings; modest reserve is impracticable, delicacy of feeling is "destroyed, grossness of manners and language—the consequence "of a mode of life which admits of no retirement, seclusion, and "meditation—become the habit of childhood, and prepare the "mind for vicious intercourse in future years. None of the comforts of home are there—none of its softening, purifying influences; "and can we wonder if from such sinks of filth and immorality "come forth—if they are spared by epidemic disease—the scandals "and pests of society, the mendicant, the drunkard, and the thief?" The *mendicant*, the *drunkard*, and the *thief*, issuing from the squalid dwelling, to infest and disgrace our thoroughfares—this is a true picture of the lowest phase of the society which, for want of a better term, I must needs call *civilised*. This is destitution indeed.

To prevent men from falling into this state of abject squalid poverty, this debasing destitution, and to raise them out of it when they have unhappily sunk into it, is the great work set before, I will not say all Christian men and Christian ministers, but before all men who have in them any common human feelings of shame for national humiliation, of compassion for distress, of respectful pity for the truly poor. To us who are assembled here this evening to renew, so to speak, our profession of a special interest in the *condition and prospects of society*; to those of us especially who have borne a part in the inquiries into the state of the dwellings of the so-called poor, which this Society has set on foot; this duty of doing battle against destitution will commend itself with irresistible force.

Here again, in this matter of destitution we have opened up to us a wide and fruitful field of inquiry, or rather a vast

"Unweeded garden
That grows to seed,"

of which it may be truly said

"Things rank and gross in nature
Possess it merely."

And in this garden it is no supernatural enemy that sows the seed, but men and women by hundreds of thousands, scattering the doles which are destined to spring up into every nauseous form of vice, every hideous variety of crime. The Fellows of this Society, familiar with the simple commercial doctrine of supply and demand, will readily appreciate the significance of the statement, that the slovenly vice of dole-giving, in exact proportion to the extent to which it is indulged, creates the demand for degraded beings ready to profit by it. Hence the hordes of mendicants, indigenous and exotic, that are at once our disgrace and punishment.

But even the Fellows of this Society are not, I think, quite prepared for this further statement, though it rests upon abundant evidence, that the mendicants, whom the dole-giver attracts and tempts, supports and subsidises, having once stooped to the degradation of begging, soon rise to the comparative dignity of crime. From this higher level they look down with profound contempt on the whole race of dole-givers, classing the more incorrigible among them with the imbecile members of their own mixed community; and it is easy to imagine with how little remorse they rob and plunder those who have already tempted and degraded them.

Another significant fact connected with this vast class of mendicant thieves, is one that I have taken some pains to ascertain and illustrate. The act of begging is at the same time an act of reconnoitring. The crossing-sweeper, the ragged boy that haunts the pastry-cook's window, the obsequious gentleman who bows at your carriage door, the hawker of matches and flowers—all these are reconnoiterers of the person; just as the impertinent folk that contrive to enter our houses on all sorts of false pretences, and those addicted to the back-door cant (for this is one of the expressive epithets of the mendicant-thief community), hang about the back doors of houses in the rural districts and half rural suburbs of our large towns, reconnoiterers of our premises, starving beggars if seen, adroit thieves if not.

These are no random statements, but facts as real and as worthy of attention as if they rested on the broadest basis of figures. But that I may not be accused of forgetting what audience it is that I am addressing, I will now remind you of certain numerical statements which I first deduced from a census of the convict population made twelve years ago, then submitted to the Fellows of this Society in 1869, and once again in an exhaustive paper on vagrancy which I read at the Social Science Association in March, 1871. These are the facts to which I am alluding, and I have more than one reason for commending them to your serious attention. Take 1,000 convicts, healthy in body and mind, and out of these 24 will be found to have been convicted of rape; but take 1,000 imbecile convicts, and the number will be 95. Take 1,000 healthy convicts, and 20 will be found to have been convicted of arson; but the imbecile fire-raisers out of the same number will have been 70. Cattle stealers will be as 35 healthy to 38 imbecile; and the perpetrators of homicidal and violent acts as 100 to 108. Women of the imbecile class are also found to be specially addicted to fire-raising and housebreaking.

In these startling figures I submit that we have a discovery which may fairly claim to take rank with a new fact in physical science; and yet for five years it has been allowod to remain inoperative, if not unnoticed. But that the facts admit of the most important practical application must be obvious, and equally clear that the number of this, the most dangerous class among our criminal population, is large enough to entitle them to the most serious attention on the part of the legislature; for, as I have stated, there were within the walls of Millbank Prison in 1869, no less than 140 of these imbeciles, recognised and treated as such, with 63 epileptics, and 25 others occupying a sort of border land, and to whom, as I believe, the eminently descriptive slang epithet *half-sharp* would be applicable.

And, in reference to these imbecile convicts, I ask you to take note of the fact that they were the remnant of men and women of unsound mind left after the removal to asylums of convicts recognised as insane and certified accordingly.

If we take these numbers, and add to them the imbeciles to be found in our county and borough gaols, and those who are continually entering and leaving our workhouses, we have a formidable aggregate of men and women unsound in the mind of thought as well as in the mind of emotion; of irascible tempers and excitable passions, without reason, natural feeling, or conscience; the terror and scourge of the rural districts; the very worst result of dole-giving and popular ignorance. There is but one fitting place for these dangerous persons—the imbecile asylum: and it is our interest and duty to lose no time in providing these asylums at whatever cost (for there is no conceivable expense that can approach that involved in leaving our imbeciles at large).

The relation of crime to madness, and of both to the safety and well-being of the State, is one that I believe to be most imperfectly understood. It is hard to realise all the insecurity of life and property which must have existed among other nations and in our own nation in times gone by, when the lunatic asylum was an unknown institution. But it is, I think, quite allowable to suppose that the gathering into madhouses of maniacs, and of such imbeciles as exhibit illusions and delusions, must have largely contributed to render the mobs of these latter times less dangerous than those which, some years since, made themselves felt by deeds of bloodshed and incendiarism; for in such deeds many madmen and most imbeciles delight. If I am right in this conjecture, then am I justified in insisting with all earnestness on the duty which devolves on the State, as the guardian of our lives and properties, of providing full accommodation for the insane, commonly so-called, and for the imbecile, for whose safe custody no proper provision has yet been made beyond the limits of the metropolis. How this may be brought about with least waste of time and money I shall presently venture to point out.

Assuming, for the moment, that suitable imbecile asylums in sufficient number have been provided, the question naturally arises how—by what machinery, shall we people them? With regard to the imbeciles to be found in our convict prisons, and in the county and borough gaols, all that is required is that the medical officers of our prisons should be instructed to certify these dangerous persons, as they now do those afflicted with the several forms of mania. There is another suggestion that I venture to offer. If we would rid ourselves of the most dangerous and costly element of our population, we must lose no time in gathering in these imbeciles; and this can only be quickly done by some short legal enactment, requiring that every person without exception who has passed through any period of punishment, however short, shall be examined by competent persons, and if found imbecile, or of weak mind, shall be committed, by certificate in due form, to an imbecile asylum, there to be detained or set at liberty after a defined period of observation and probation. If any one should object to the expense which such a measure would entail upon us, I reply, after full consideration of the subject, and a personal experience of this imbecile class, that such a measure as I suggest would effect the greatest economy that, at the present moment, it is possible to bring about. Arson, and murder, and rape, are not only horrible crimes, but most costly occurrences, and the men and women who are in a special manner addicted to these crimes live habitually on the credulity of the dole-giver, and the produce of the sale of all sorts of unprotected property.

But those who have to do with the criminal class are being constantly perplexed by cases of imbecility which betray themselves not by lesion of the intellect but in the follies and vices of a life. These are the *half-sharps* of whom I have already spoken; and they can only be dealt with by the same measure which ought obviously to be applied to all habitual offenders. A criminal suffering at the hands of the law a series of equal punishments for scores or even hundreds of like offences may be pronounced the most absurd spectacle that the sun shines upon. Justice and common sense alike require that a broad line of distinction should be drawn between men and women convicted of one crime, and those who, after receiving the warning of a first punishment, are guilty of a second offence. This marks the habitual criminal, who needs, for his own sake and the safety of the public, a reformatory treatment demanding time for its application, and productive labour for its chief remedy. If, at the expiration of a suitable period (say a year) so spent, the discharged prisoner again lapses into crime, the man is to be looked upon not merely as an habitual criminal but as an incorrigible offender; probably insane, certainly unfit to be trusted with liberty—entitled only to such considerate treatment as can safely be shown to one unfit to govern himself, and who ought not to be again let loose upon the public except after a prolonged period of probation.

I have spoken of the imbecile population of our convict prisons as persons whose proper place of detention is the imbecile asylum; and I ask myself, in reference to those well-ordered establishments, our convict prisons, whether there is not in them, in one point at least, room for further improvement. You are probably aware that all convicts for nine months, or thereabouts, are kept in solitary confinement, occupying day and night the same cell, and set to produce some common article (such as mats), of which the sale enters into competition with outside labour, and lowers the remuneration for it. This procedure is based upon a belief, which I think altogether unfounded, that a prolonged separation of this kind tends to reformation of morals. All the good that can be done by this means, would, I am convinced, be effected by a month's separation, followed by labour at public works; and if this general rule ought to be subject to any exception it should be in the case of convicts who have committed more than one offence. A month's solitary confinement for each offence would probably answer every practical purpose.

From prisons the transition is natural to those mixed establishments, misnamed workhouses, of which the interior arrangements, excepting always the separation of the sexes, and of persons of different ages, reminds one more than is pleasant of the state of our prisons in Howard's day. Three different classes at least are to be found occupying the same ward—the aged and worn-out mendicant-thief, the imbecile (perhaps the idiot), and the poor to whom the name of poor is rightly applied. Can any reasonable or humane man doubt that these three classes should be separated, that idiots and imbeciles should be placed in asylums, and the dregs of the population kept separate from the respectable poor?

And here I am brought back to the question I reserved for consideration when treating of imbecile prisoners. How shall the needful asylums be provided at the least waste of time and money?

The answer is easy. The buildings are ready to our hands. A few structural changes would fit them for their new and better uses. I speak of the union workhouses; and I commend to the serious attention of the legislature the expediency of carrying the work of consolidation which Fielding commended in 1753, and we carried into partial effect in 1834, to its legitimate and rational climax. Let our union workhouses be surveyed and allotted to the distinct uses to which they are best adapted—asylums for the imbecile, asylums for the idiot, schools for children of different ages, almshouses for the respectable, places of strict detention for the unruly and incorrigible wreck of the criminal community.

In favour of this scheme of consolidation, for which our cheap and easy communication by rail affords facilities formerly unknown, there are obvious economic reasons to be advanced; and there can be no doubt that any expense the new system might entail would be amply defrayed by the sale of buildings which the survey itself would prove to be unnecessary. Another good result, which might possibly follow on the adoption of this plan, would be the virtual extinction of the poor law, as a costly machine for the relief of poverty. The provision of asylums for the idiot and imbecile being regarded as measures of protection of life and property, and not as belonging to a poor law strictly so-called, it might be possible to provide for sickness, the education of the poor, and the care of the infirm by *pro ratâ* contributions by the State, or the counties, to well ordered institutions maintained by the voluntary charitable contributions of the public.

Of the poor law generally I may take this opportunity of observing, that it is a huge unwieldy machine for doing the work of palliation; and that it is based on the unsound theory that it is the duty of the State to take care that no single person shall die of want, instead of that better theory that it is its duty so to manage matters that the smallest possible number of people may perish. This merit belongs to no conceivable system of palliation. It is the sole prerogative of that grand policy of prevention which Howard may be said to have inaugurated a century ago.

To drop pence into the hands of the ragged and unclean; to open wide the doors of the union workhouse as a lying-in institution for profligate women, a foundling hospital for all children for whom their parents find it inconvenient to work; a temporary resting place for every wandering imbecile and lazy vagrant—this is palliation. To abstain from giving to all whose only claim to receive money is that they ask for it; to gather into fitting asylums the idiot, the imbecile, and the maniac; to discountenance all unnecessary mustering of crowds, especially in populous cities; to discourage to the utmost all indebtedness, and to encourage every form of thrift; to instruct and educate not only the people called poor, but those also who deem themselves rich enough to indulge in the lazy luxury of dole-giving; to provide for these wrong-doers some fitting punishment—this is prevention.

Now these and such like measures of prevention are especially needful for those who live under forms of government similar to our own, in which, while much that needs correction is left to the slow growth of a sound public opinion, and an adequate physical force, in the shape of police and soldiers, is known to be in reserve, the action of authority is paralysed by the fear of shedding blood, or even of incurring the charge of inhumanity. In such a state of things it is of the utmost possible importance that the imbecile element of the population should be gathered from our streets and highways, and committed to what may be truly called the tender mercies of the enlightened officials who govern and manage our asylums.

For the observations and suggestions, which I have now ventured to submit to you, some apology may perhaps be needed, even by those who bear in mind the fact that I have been speaking of matters that have come under my own observation, or respecting which I have taken care to obtain information. Possibly it may tend to disarm censure if I remind my audience of the fact that, having full a quarter of a century ago called attention, in the strongest language I could use, to the evil doings of our army of dole-givers, and branded their acts, not as failings leaning to virtue's side, but as vices richly meriting the punishment of crimes, I have lived to see the day when a "*Charity Organisation Society*," converting theory into practice, has undertaken not merely to detect and punish the mendicant-thief community, but to instruct, reprove, and admonish those without whose mischievous interference that formidable community could have no existence.

If I have given more attention to this topic than to others bearing on the Condition and Prospects of Society, it is because of its surpassing importance in every point of view from which the members of a civilised community can regard it.

When I speak of a civilised community, or make use of the word civilisation, I wish it to be well understood that I do not mean a state of things which deserves commendation as compared with ideal perfection, but only when contrasted with what existed at some former, perhaps very remote, period. The England of this day is civilised when compared to the England that saw its people clothed in sheeps'-skins, its houses warmed by fires kindled against a reredos, the smoke issuing from an opening in the ceiling; the England that was decimated by famine and pestilence; the England of unpaved streets, and floors even of palaces strewn with rushes or hay;

the England that had not yet cultivated a garden or imported a potatoe, the England that as little as a hundred years ago bore the reproach of prisons such as Howard saw them, and which not very long since abolished slavery and the slave trade, and mitigated the strange severities of a penal code that deemed life a small thing in comparison with property. This is what I mean by civilisation. As to the present, I would sternly refuse that honourable name to any nation, however vain of itself, in which any considerable section of its people still lies wallowing in filth. Though its buildings were palaces, though its streets abounded in faultless statues and monuments, and gardens full of flowers and fountains, and its houses in exquisite works of art, I would still pronounce that nation barbarous if the masses of its people had not yet been raised to the level of a decent, orderly, and comely life.

If these thoughts are not misplaced when applied to other countries, how much less can they be deemed irrelevant when brought to bear on this England of ours. Philosophers, poets, and statists (such men as Bacon, and Shakespere, and Milton), in days when true civilisation had not yet dawned upon us, saw something in our people, in their hatred of tyranny, their love of truth, their sense of honour, their manly bearing, their capacity for labour, (marred, though these were by drunkenness and gluttony, gambling, and fondness for coarse and even cruel sports)—something that led them to claim for England the proud privelege to "teach the nations "how to live." And these were no false prophets, as they themselves must needs confess if they could see us as we now are; already parents of one great nation—the first among a family of children—to whom the world owes most of its great discoveries and inventions, and the encouraging example of a people sincerely condemning itself for many faults, but ever eager for their correction.

The Value *of* Death-Rates *as a* Test *of* Sanitary Condition.

By N. A. Humphreys, Esq., F.S.S.

[Read before the Statistical Society, 15th December, 1874.]

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The reliability of the Registrar-General's death-rates as a standard for measuring relative mortality, and, indirectly, sanitary condition, is not only an interesting arithmetical problem; with it is also most intimately bound up the future of sanitary progress. The importance of the subject as affecting the health and social welfare of the nation, can, therefore, scarcely be over-rated.

National interest in sanitary matters, is comparatively of recent date, and was almost unknown prior to the establishment of the General Register Office. How much of this national interest is due to the Registrar-General's publications, and the unvarying confidence with which they have, till recently, been accepted by the press and the public, it is not within the province of this paper to discuss. Certain it is that death-rates, calculated by what has been called the "national system"*—that is, by the simple proportion of deaths to population—have been universally adopted not only at home, but in all parts of the world. The population standard, by its very simplicity, offers many inducements for its acceptance, and is not only thoroughly comprehended by the public, but has been so far endorsed by the Government and Houses of Parliament as to have been recognised as a safe basis for legislative enactments in health matters.

In the annual reports and other publications of the Registrar-General, this general death-rate has never been stated to be scientifically accurate, but only as approximately correct. In one of the earliest annual reports, the fifth, published in 1843, this subject of death-rates was fully discussed. It was there clearly pointed out that, although the death-rate calculated by the population standard was sufficiently accurate for general deductions as to sanitary condition, the Life Table was the only correct method for measuring mortality, on account of the disturbing influence of age distribution, consequent upon the varying rate of increase prevailing in different populations. This and other causes, which somewhat disturb the scientific accuracy of death-rates, have subsequently been from time to time referred to and critically examined in other reports, especially in the sixteenth, published in 1856. No sufficient cause, however, has yet been discovered by the Registrar-General or his advisers for abandoning this convenient method for measuring mortality.

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* This term, the "national system," was used by Dr. Arthur Ransome, M.B., B A. Cantab., in a paper "On some of the Numerical Tests of the Health of Towns," published in 1863. It is adopted here as a convenient form of expression.

One of the results, of the undoubtedly useful popularisation of sanitary statistics through the publications of the Registrar-General, is a large increase in the number of those who now venture to write on vital statistics. This number is largely recruited from among the recently-appointed medical officers of health, who, if they owe their official existence to one thing more than another, do so to the public education in sanitary matters based upon the facts and figures of the Registrar-General. Health officers must, of necessity, become more or less students of vital statistics, and some of them have also become adverse critics of the "national system" of death-rates. It is not that they can point to cases, in which communities labelled by the Registrar-General's system as suffering from high death-rates, are really in a healthy and satisfactory sanitary condition; or the reverse. It is not because they have any more correct, and as convenient a standard for measurement to propose. It is only that in the early stages of their study of vital statistics they have *discovered* the existence of one or other of the *disturbing* influences which have again and again been acknowledged and discussed by the Registrar-General.

These adverse criticisms on the "national system" have recently been revived partly because previous objections had remained unanswered through official reticence, and partly because the objectors have not comprehended the full bearing of the mathematical axioms which have appeared at different times in the shape of official memoranda relating to the "significance of death-rates." It it is not, therefore, from statists that objections to the reliability of death-rates have emanated, but from members of the medical profession who, however well founded their claim to be heard as authorities upon State Medicine, have lacked the special training necessary to the statist.

The most recent, and upon the whole, perhaps, the most remarkable of these adverse criticisms was embodied in an inaugural address, delivered by the President of the Society of Medical Officers of Health—an address which reiterated all or most of the charges which have from time to time, during the past ten years, been made against the reliability of the Registrar-General's mortality statistics; some of which charges have been answered or refuted, and others acknowledged by their authors to have been erroneous.

Some of these charges appear at first sight of such a specious character that, without a technical acquaintance with the real points at issue, they recommend themselves for acceptance; and they have accordingly produced an undue impression on the press and the public. The question—could any one, who spoke so confidently from such a position, be mistaken? was naturally answered in the negative. The substance of the address was printed at length, or endorsed by leaders, in some of the principal daily papers, and the public were warned against accepting in future the Registrar-General's figures as evidence of sanitary condition.

The cause of sanitary progress would suffer to an incalculable extent if these death-rates were really unreliable and fallacious, for no more reliable standard for measuring mortality is yet even proposed. In the interests of truth, as well as of sanitary progress, the real questions in dispute should, therefore, be more generally understood. It thus becomes important carefully to examine the substance of the charges, which have so recently been collected and re-issued, and which have in many quarters been so readily accepted as well-founded.

Before examining the several charges in detail, allusion must be made to the sweeping assertion that the census enumerations, and the birth and death registers, are unreliable bases for calculation. In the nature of things, it is impossible that these records can be perfect, and the existence of certain imperfections has always been freely admitted. This admission of imperfection, however, unfortunately opens the door to the most random assertions as to the extent and effect of these imperfections. The persons who seek to prove the inaccuracy of these public records, support their charges by elaborate figures derived from the same source; apparently losing sight of the fact, that if the figures derived from the census and birth and death-register are wholly unreliable, their own charges, based upon the same figures, are also built on the sand.

Time will not permit the full discussion of the value of these sources of nearly all our knowledge of English vital statistics, but there is every reason to believe that each census has been on the whole more reliable than the preceding one, and it is still more certain that the birth and death registers more nearly approach correctness year by year. Taking the birth register for instance: a careful comparison of the enumerated population at a series of censuses, with the number of registered births, resulted in an estimate of 38,036 unregistered births per annum during the ten years 1841-50; 19,323 between 1851 and 1860; and 13,614 in each year of the decenniad 1861-70.* The estimated deficiency of the birth register in the last decade is equal to but 1·8 per cent. of the births registered. It is safe, therefore, to dismiss the idea that this extent of imperfection will seriously disturb the calculations based upon the registered births. There is, moreover, the best ground for believing that the errors or omissions which occur in such records have a tendency so to equalise themselves as not materially to affect calculated results.

Mr. Milne, at the beginning of the present century, in a chapter on the "Progress of Population," in his well known work on the "Valuation of Annuities and Assurances" (vol. ii, p. 393), when speaking of figures based on the best facts in vital statistics available at a date considerably prior to the passing of the Registration Act, says: "It may reasonably be presumed that the *returned* numbers are always in the same ratio to the *true;* and this is all that "is necessary to the truth of the inferences drawn." And again (p. 415), when speaking of the baptisms being considerably short of the true number of births, Milne says: "They will not, therefore, "be the less fit for the purpose we have applied them to, provided "that they be always deficient in the same degree; that is, provided "that the omissions be always proportional to the true numbers: "for it is not the *absolute numbers* but their *relative proportion only* "that are essential to the calculation."

It is justifiable, therefore, for the purposes of this paper to urge the acceptance of the censuses and of the birth and death registers as approximately correct. They are certainly far more correct than any basis for such statistics that existed thirty years ago. What therefore would be gained by rashly cutting ourselves adrift from them?

Let us now proceed to examine in greater detail the more definite charges which are brought together in this address. For their better discussion, the principal objections made to the "national system" of death-rates may be classified as follow:—

1. That no account is taken of the proportion of the two sexes in a population, although the Life Table death-rate is 25·05 per 1,000 among Males, and only 23·90 among Females.

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* Census Report (1871), vol. iv; Appendix A, p. 55.

2. That the influence of the distribution of a population at different groups of ages, which depends in great measure upon the birth-rate and upon the proportion of emigration or immigration, is so great as to destroy the value of the general death-rate, uncorrected for this disturbing influence.

3. The impossibility of calculating reliable death-rates upon mere estimates of population between decennial censuses.

4. That the death-rates in town are so favourably affected by immigration of healthy young adult lives, in addition to the interchange of good for bad lives, at the expense of the country, that the comparison of urban and rural death-rates is valueless.

That these four classes of disturbing influences exist, together with a host of others, such as climate, soil, occupation, density, social condition, &c., has always been frankly admitted. The true effect and extent of these influences is therefore all that is really in dispute. The special object of this paper is to explain and show, as plainly as may be possible, by an appeal to actual figures, and apart from all theory and reference to abstract principles, which are liable to be misunderstood, what is the actual limit within which general death-rates are disturbed by these causes. Further, it is desired to point out how health officers and others may apply corrections to their death-rates for these irregularities.

I.—*Influence of the Varying Proportion of the Sexes in a Population upon its General Death-Rate.*

This disturbing influence is placed first for consideration, because it is comparatively easy to show by a few figures, the result of a far more extended series of calculations, that the extreme limit of disturbance in the general death-rate from this cause is so small, that all idea of the necessity for making a correction on this account may safely be dismissed. As will presently be explained, this materially abridges the labour requisite for carrying out a correction for the varying proportion of persons living at the several groups of ages.

For the purpose of arriving at the amount of disturbance produced in the general death-rate by the proportion of the sexes, as well as by the other disturbing influences to be hereafter discussed, thirty-one different sections of the population have been completely dealt with in each series of calculations. These embrace England and Wales entire; three counties with high birth-rates; three counties with low birth-rates; the eighteen large English towns for which the Registrar-General publishes weekly returns; two other large towns with abnormally low birth-rates, and two others with exceptionally high birth-rates and a remarkably high rate of increase by immigration; and the district of London city, the population of which is unusually constituted in many respects. It is needless here to describe at length the considerations which led to the selection of these populations to experiment upon: these will probably become apparent as the argument is developed. In proceeding to consider the proportion of the sexes in these thirty-one counties, towns, &c., it may be well first to notice what may be called the *normal* proportion of the sexes in the English population. The English Life Table is based upon 1,000,000 births annually, in the proportion of 511,745 males to 488,255 females, which was the observed proportion of the sexes in the births during the seventeen years, 1838-54. In consequence, however, of the varying rates of mortality in the two sexes—that is, the greater mortality among males—the proportions maintained in this Life Table population of 40,858,184 persons, is 20,426,138 males to 20,432,046 females, showing an excess of less than 6,000 females. The actual proportion of the sexes is by this compensating process equalised; and although there are 512 males to 488 females in each 1,000 births, the average numbers in the entire population are as 499·9 males to 500 females. The excess of females in the entire Life Table population is therefore so very slight that the normal proportions of the two sexes in such a population may be taken to be equal.

The excess of males born is gradually reduced at each year of age, by the greater mortality among males, up to 52. Among the survivors in the Life Table population to the age of 53, the females slightly exceed the males, and this excess increases actually and proportionately at each subsequent year of age.

We must now turn to the proportions found to exist in actual populations as enumerated, instead of in the theoretical Life Table population we have just considered. In the population of England and Wales, enumerated in 1871, the proportion was found to be 487 males and 513 females in each 1,000. It is worth notice that this proportion is *identical* with that which was found to exist at the previous Census in 1861; this appears corroborative of the approximate correctness of the two census enumerations, at any rate in this respect. The proportion of the two sexes would naturally be altered if the number of English males engaged abroad in the army, navy, and merchant service, were brought into account; but this is unnecessary for the present purpose, as we have only to deal with the proportion of the sexes as they affect the general death-rate at home. The excess of females in the English population at home would be still larger, but for the large proportion of the population living at the earlier ages, when the number of males considerably exceeds that of females.

The annual death-rate of the two sexes, at all ages, as determined by the English Life Table, is 25·05 per 1,000 among males, and 23·90 among females; and as the proportion in a Life Table population is nearly equal, the mean of these two rates (24·48) is almost identical with the average rate among persons, which is 24·47. If the actual inhabitants of England and Wales were equally divided as to sex, the Life Table, or what may be called the *normal* death-rate per 1,000 would be as follows:—500 males would give 12·53 deaths in the year, and the 500 females 11·95 deaths, together making an annual rate of 24·48 deaths per 1,000 persons living. Taking the actual population, however, the 487 males by calculation on the same *normal* rate would give 12·20 deaths, and the 513 females 12·26 deaths, making together 24·46 deaths annually in each 1,000. The only difference in these death-rates caused by the divergence in the actual proportion of the sexes in the English population, from what may be called the *normal* or Life Table proportion, amounts to 0·02 (0·015) per 1,000, or 1·5 deaths annually in a population of 100,000 persons. So much for the influence of this disturbing element in the general English population. Now let us for a moment look at the probable extreme limit of this disturbance in exceptionally constituted populations. If it were possible to have two different populations, one composed entirely of males and the other of females, we know that, sanitary conditions being equal, and the distribution at the different ages being normal, the death-rate in the male population would exceed that among the female population by 1·15 per 1,000 This is the extreme (although impossible) limit of disturbance from this cause. On examination, however, of the constitution of the thirty-one sections of population which have been most completely operated upon as the basis of the calculations for this paper, it is found that the extreme of disparity in the sexes is comparatively limited. The two cases in which were found the largest proportion of males were Barrow-in-Furness and Middlesborough-on-Tees; the explanation of this excess of males in these new town centres is obvious, and need not here be dwelt upon. In Barrow, in each 1,000 of the population 577 were males and 423 females; in Middlesborough 544 males and 456 females. The death-rate in these two towns, calculated according to the *normal* male and female rates, is 24·57 and 24·53 respectively. Bath and Cheltenham were found to have the largest proportion of females in their populations; in Bath the proportion per 1,000 was 403 males and 597 females, and in Cheltenham 413 males and 587 females. The Bath and Cheltenham normal death-rates, calculated only on the proportion of males and females in the population are 24·37 and 24·38 respectively. Taking Barrow-in-Furness and Bath as the extreme examples the *normal* death-rates are 24·57 in Barrow and 24·37 in Bath, showing a difference of 0·20 per

1,000 in the annual rate, or only 20 deaths annually in 100,000 of population. If we assume, which appears reasonable, that these two towns are fair examples of the largest disproportion between the sexes, is it not also safe to assert that the disturbance of the general death-rate from this cause, which at the utmost is 0·2 per 1,000 may safely be disregarded; and that it never can destroy or even impair the value of death-rates for the purpose of estimating sanitary condition?

Before leaving this branch of the subject, it may be interesting to mention two other examples of the varying proportion of the sexes. In the county of Durham, each 1,000 of the population in 1871 contained 517 males and 483 females; a like number in Devonshire contained only 474 males and 526 females. The *normal* annual rates of mortality in these two counties, calculated in the above described manner, would be 24·49 per 1,000 in Durham, and 24·45 in Devonshire; the difference being only 0·04 per 1,000, or 4 deaths in each 100,000 of the population per annum. This amount of disturbance is scarcely worth serious consideration, but it cannot be otherwise than useful to know that it is so small, and to be thus able to dispose of the charges against the reliable value of general death-rates on account of its influence.

II.—*The Extent of the Influence of the Varying Proportions of a Population Living at Different Ages.*

We now approach the consideration of by far the most important class of those influences which disturb the general death-rates calculated on the "national system;" namely, the variations in the proportions of persons living at different ages in different sections of the English population. That this disturbing influence is in operation, has been again and again acknowledged in the periodical reports of the Registrar-General, and it is of course fully recognised by all competent statists.

One quotation from the Registrar-General's sixteenth annual report, published early in 1856, will be sufficient evidence that the existence of this disturbing element has been officially comprehended and acknowledged. "The population in which the annual number "of births increases, contains an undue proportion of children, of "youths, and of persons of middle age; and the result is that the "rate of mortality is *less* than it would be if the population were in "the proportions that would arise from an equal number of annual "births. The deaths to 1,000 living in different districts will "therefore vary to some extent, according as the population is "constituted of more or less of the children or adults at the ages "that experience a relatively high, or low, rate of mortality. But

" allowing for the circumstance that the annual deaths to 1,000 " living in England should be less than they would be if the births " did not increase the mortality of different districts varies with the " different degrees of health in the population."

Let us at once proceed to point out and to consider the *extent* of this influence.

According to the English Life Table, the annual rate of mortality per 1,000 *persons* living at each year of life, ranges from 165·6 in the first year (0—1), to 4·90 in the fourteenth year (13—14) of age. It is easy, therefore, to see the extent of difference in the death-rate which would prevail in two populations, were it possible for one to consist entirely of infants under one year of age, and the other entirely of children aged between thirteen and fourteen years. It is practically impossible that populations so constituted could exist anywhere, but the fact of the wide range of death-rate at the different ages is thus prominently shown, suggesting the inquiry how far this element will destroy the value of the general death-rate, calculated without correction for this disturbing influence. Many opponents of the "national system" have hastily arrived at the conclusion that because the death-rate at the several ages thus differs so widely, it follows as a matter of course that general death-rates which take no account of this source of disturbance must be valueless. In carefully discussing this charge, not only will the probable extent of the disturbance be determined, but a method will be pointed out by which the requisite correction may, with a near approach to accuracy, be carried out by any one anxious to ascertain what the *normal* death-rate of any section of the population should be after due allowance for abnormal distribution of the population at different ages.

Mr. Milne, whose authority will scarcely be questioned, in his valuable work before mentioned (vol. ii, p. 413) says: "In a population " that is increasing by procreation, the proportions between the " numbers of the living in the several intervals of age will be " different; therefore, although the law of mortality in each of " those intervals remain the same as in a stationary population, the " total mortality may be different." This suggests that *normal* death-rates should be calculated for a population, taking into full account their age disturbances, as a standard for measuring the recorded general death-rate. For in England nearly all sections of the population are *increasing* populations.

Within the limits of this paper it is impossible to deal separately with each year of age; in calculating the proportions of persons living in the thirty-one sections of the population before alluded to, the ages have therefore been considered in five groups, and the rate of mortality calculated for each of those groups of ages. The sub-divisions adopted are as follow:—under 5 years, 5 years and under 20, 20 to 40, 40 to 60, and 60 years and upwards. These are the groups of ages adopted in Table 42 of the Appendix to the Census Report for 1871, which shows the proportional number per cent. of males and females living at each of these groups of ages in 1871, to the total numbers of each sex, in forty-two of the largest English towns. Before basing any calculations on these enumerated proportions it will be well to mention that the number of infants enumerated in 1871 under 1 year of age was again undoubtedly below the real number. A similar deficiency, well known to the Census Commissioners, was pointed out by Mr. Sargant in a paper read before this Society in 1864, with reference to the enumeration in 1861. Mr. Sargant somewhat hastily came to the conclusion that because too few infants had been enumerated under 1 year of age, it followed that the missing infants had not been counted at all. Dr. Farr, however, clearly pointed out, in a paper read before this Society in February, 1865, that the numbers of children enumerated at the next few years of life were in excess of what they should have been, to about the same extent as those under 1 year were deficient. The confusion which prevails in the public mind as to proper description of age, in great measure accounts for these discrepancies. Infants in their first year of life are frequently returned as aged 1 year, in the second year as aged 2, and so on. The consequence is, that although the numbers enumerated under 1 year are too few, the omitted infants are not left uncounted, as Mr. Sargant concluded, but are only carried forward to subsequent ages. As the result of careful investigation, Dr. Farr came to the conclusion that these discrepancies righted themselves in the second, third, fourth, and fifth years of age; in fact, that the numbers of children enumerated under 5 years of age were sufficiently accurate for the calculation of an approximately correct rate of mortality. For this reason it became advisable, for the purposes of this paper, to reject the enumerated numbers of infants under 1 year of age for estimating the number of deaths that should occur at the Life Table rate annually at that age in a given number of each of the thirty-one sections of the population.

In a Life Table, or stationary population, 98 in each 1,000 would be of children under five years of age, including 22·1 of infants under 1 year of age, and 75·9 of children aged between 1 and 5 years. Between the ages 5 and 20 years there are 255·1 persons living, 295·0 between 20 and 40 years, 225·7 between 40 and 60 years, and 126·2 aged 60 years and upwards. Such is the constitution of 1,000 of a Life Table population. Reducing these to three groups, 353·1 per 1,000 are children and young persons under 20 years, 520·7 are adults aged between 20 and 60 years, and the remaining 126·2 are elderly people aged 60 years and upwards. If we still further simplify the division, and, following the suggestion of Dr. Jarvis, of Dorchester, Massachusetts, in his recent valuable report upon the health of that State, add the children and elderly persons together, calling them the dependent class, we find that they amount to 479 per 1,000, while the sustaining class, consisting of adults between 20 and 60 years, number 521.

Let us next consider the annual death-rates in these several groups of ages, according to the English Life Table. It has before been stated that, among infants of both sexes living under one year, the mean annual death-rate is 166 per 1,000, but the rate at the group of ages 1—5 does not exceed 37, and the average rate in the first quinquenniad of life, namely 0—5, is 65·7 per 1,000. The next group of ages, 5—20, is the healthiest. The death-rate in the English population between these ages does not exceed 7·1 per 1,000; and in the next group of years, from 20 to 40, it only increases to 10·3. Among adults aged from 40 to 60 years the mean annual death-rate is 18·3 per 1,000; and at the higher ages, 60 years and upwards, the death-rate rises to 71·7. The mean annual mortality of all persons aged under 20 years is 23·4 per 1,000; between 20 and 60 years only 13·8, and above 60 years 71·7. It is apparent, therefore, that the correct general death-rate of a population depends to some extent upon the relative proportions living in the first few years of life and at the ages over 60 years, when the rate of mortality is high, to the proportion at the adult and middle ages, when the rate of mortality is low.

Mr. Milne, in his valuable treatise upon "Human Mortality," prepared for and published in the "Encyclopædia Britannica," lays down as an axiom for the calculation of a correct death-rate, that "the population enumerated must always be precisely that which "produces the deaths registered; the grand desideratum being to "determine the number of annual deaths at each age, which take "place among a given number of the living at the same age." In calculating the following *normal*, or Life Table death-rates, in different populations, the principle of this axiom has been observed.

From the consideration of the theoretical, or Life Table populations, we will now turn to the actual living populations enumerated at the last census; first noticing the observed proportion of persons living at these different groups of ages, and afterwards proceeding to notice the effect of the variations in these observed proportions upon the calculated *normal* death-rate in each population. In calculating these *normal* rates, the varying proportions of the two sexes has not been taken into account. The extreme limit of disturbance produced by the proportion of the sexes is found to be so small, that it appeared unnecessary to calculate the *normal* rates, separately, for the males and females in each population.

Following the same course as was adopted when considering the influence of the proportion of the sexes, we will first look at the enumerated proportion of persons living in 1871 at the several groups of ages. In each 1,000 of the enumerated population of England and Wales there were 135 under 5 years of age, including 30 under 1 year, instead of 98 in the Life Table population; 322 aged between 5 and 20 years, against 255; 294 from 20 to 40 years, against 295; 174 between 40 to 60 years, against 226; and only 75 aged 60 years and upwards, against 126 in the stationary Life Table population. Simplifying these sub-divisions, we find that 210 persons in each 1,000 were either aged under 5 or over 60 years, when the mortality is high, against 224 in the Life Table population; the large excess of young children being compensated for to a considerable extent by the large deficiency of persons aged 60 years and upwards. At the ages of low mortality, from 5 to 60 years, the English enumerated population shows 790, against 776 in the stationary Life Table population.

We will now look at the effect of this distribution on the average general rate of mortality in England. With this object the representative 1,000 of the enumerated population is divided at the several groups of ages in the same proportion which prevailed in the entire population, as detailed above. Then to the number in each group is respectively applied the average Life Table annual rate of mortality for each group. The result is the number of deaths which at the standard rate would occur in a year among the persons living in each group. When this operation has been completed for each of the groups into which the 1,000 of population is divided, the casting of the deaths so obtained at each group represents the total number of deaths which ought to occur in each 1,000 of a population so distributed at the different groups of ages. The number of deaths obtained in this way constitute the *normal* death-rate. The *normal* death-rate in the English enumerated population thus calculated is 22·75 per 1,000. Of these 22·75 deaths, 8·89 would occur among children under 5 years of age, 2·29 among persons aged from 5 to 20 years, 3·03 between the ages 20 and 40, 3·18 among persons aged between 40 and 60, and 5·36 are of persons aged 60 years and upwards. Now, the average annual death-rate at all ages in a stationary or Life Table population is 24·47 per 1,000; but, in consequence of the different distribution of the actual English population, which is a rapidly increasing population, its normal rate of mortality is only 22·75 per 1,000, or less by 1·72 per 1,000. This, it should be remembered, makes no correction for the proportion of the two sexes.

We thus find that the annual rate of mortality in England and Wales ought to be 1·72 per 1,000 below the correct Life Table mortality in a stationary population, taken as the national standard, in consequence of the excessive proportion of persons living at the ages when the rate of mortality is low, and the consequent small proportion of persons at the advanced ages, when the death-rate is high. The same causes produce similar results in all populations in which a considerable rate of increase prevails, and the next object will be to ascertain the relative divergence from the general Life Table rate in a stationary population, which should prevail in populations differently constituted as to their distribution at different ages. The first step is to calculate the *normal* death-rate at all ages for each of the populations under discussion, in the same manner as that in which the *normal* rate for England and Wales was obtained.

The six counties selected as examples of the effect of different age distribution upon the general death-rate, are Devonshire, Dorsetshire, and Herefordshire, in which the birth-rate and general rate of increase are comparatively low; and Staffordshire, Lancashire, and Durham, in which both the birth-rate and the entire rate of increase are, on the other hand, abnormally high. It will be observed that the three counties chosen for their low rates of increase and low birth-rates are principally agricultural; whereas the other three, showing high rates of increase and high birth-rates, have populations principally engaged in manufacture or mining. Again, the percentage of urban population living in towns of more than 10,000 inhabitants was only 14·6 in Herefordshire, 11·9 in Dorsetshire, and 35·1 in Devonshire; whereas it was 45·9 in Durham, 64·1 in Staffordshire, and 71·2 per cent. in Lancashire. In the three agricultural counties the *normal* death-rate is 23·7 in Dorsetshire, 23·8 in Devonshire, and 24·0 in Herefordshire. It will be seen that each of these rates is lower than the stationary Life Table death-rate (24·5), although higher than the *normal* rate for the whole of England and Wales. Each of these counties has an increasing rate, although the rate of increase is lower than that for the whole of England. These three counties contain 130, 125, and 127 per 1,000, respectively, of children under 5 years of age, against 135 per 1,000 in the whole of England; but the marked difference in constitution of their population is shown in the proportion of persons aged 60 years and upwards, which is 95 per 1,000 in Dorsetshire, 100 in Devonshire, and 102 in Herefordshire; whereas the average proportion in England and Wales is but 75. This excessive proportion of elderly persons is caused by the reduction in the numbers of adults (principally at the ages 20—40), probably the result of emigration. In the three principally mining and manufacturing counties the *normal* annual death-rate is 22·6 per 1,000 in Staffordshire, 22·2 in Durham, and only 21·7 in Lancashire. Each of these rates, in consequence of the high rate of increase that prevails in the population, is lower than any of the rates before shown. The principal cause of this is, that the proportion of persons living in these counties at 60 years and upwards is low, whereas that of young adults is unusually high. The proportion per 1,000 of persons aged 60 years and upwards, is only 53 in Durham, 56 in Lancashire, and 61 in Staffordshire, whereas in a stationary Life Table population it is 126, and in the enumerated population of England and Wales 75 per 1,000. The *normal* annual rate in a stationary Life Table population is 24·47 per 1,000; in England and Wales, in consequence of the distribution of its increasing population at different ages, it averages 22·75; in three English counties with a more moderate rate of increase it averages 23·88; whereas in three counties chosen on account of their high rate of increase it averages only 22·17 per 1,000.

It will be well now to show what use it is proposed to make of these *normal* death-rates, as a means of ascertaining the value of the general death-rates, calculated upon the "national system," as a test of sanitary condition. The following table will assist this object.

TABLE I.—*General and Normal Death-Rates in* 1871, *in Six English Counties.*

	1	2	3	4	5	6
Counties.	Annual Death-rate per 1,000, 1871.	Normal Death-rate.	Difference between Normal and 1871 Death-rates.	Zymotic Death-rate per 1,000, 1871.	Deaths under 1 Year to 1,000 Births, Registered 1871.	Deaths to 1,000 Living, Aged 60 and upwards, 1871.
Hereford	18·0	24·0	− 6·0	1·8	112·7	64·1
Dorset	18·5	23·7	− 5·2	2·6	108·6	63·6
Devon	20·9	23·8	− 2·9	3·4	128·1	68·5
Stafford	23·7	22·6	1·1	5·2	169·0	71·9
Lancashire	27·5	21·7	5·8	6·6	190·8	79·5
Durham	28·3	22·2	6·1	9·1	193·6	73·0

In this table the six counties we have just been considering, are arranged in the order of their annual rates of mortality during the year 1871, calculated by the "national system," or by what has with less politeness been styled the "common and vulgar method;" in other words the rates of mortality obtained by the division of the deaths registered, by the estimated population in the middle of the year 1871. The general rates in col. 1 range from 18·0 and 18·5 in Herefordshire and Dorsetshire, to 27·5 and 28·3 in Lancashire and Durham. In col. 2 is entered against each county respectively, the *normal* death-rate which ranges, as before stated, from 24·0 in Herefordshire and 23·8 in Devonshire, to 21·7 in Lancashire. Col. 3 shows the difference between the actually recorded and the *normal* death-rates in 1871; this is strictly due to sanitary condition in the broader and more liberal interpretation of that expression. It will be observed that this difference ranges from 6·0 per 1,000 below the *normal* rate in Herefordshire, to an excess of 6·1 in Durham. It is valuable to observe, as evidence of the reliabilty of the Registrar-General's death-rates, in which no correction is made for variations in age distribution, that the six counties stand in the same order whether arranged according to these general rates, or according to the difference between the general rate and the *normal* rate, in which the influence of the different age distribution in the different counties is fully taken into account. Further evidence in support of the value of the general death-rate as a test of sanitary condition may be obtained from the three succeeding columns of the table. In col. 4 the death-rate from the seven principal zymotic diseases in each of these six counties will be found to run in exactly the same order as the general rates, and the difference between the *general* and the *normal* rates. Again, in col. 5 it is shown that infant mortality, measured by the proportion of deaths under one year to births registered, ranged from 112·7 and 108·6 per 1,000 in Herefordshire and Dorsetshire, to 190·8 and 193·6 in Lancashire and Durham. Lastly, the annual death-rate per 1,000 among persons aged 60 years and upwards did not exceed 64·1 and 63·6 in Herefordshire and Dorsetshire, whereas it was 79·5 in Lancashire and 73·0 in Durham. It would require more courage than judgment to pronounce, after fully considering the figures in the six columns of this table, that the death-rates for these six counties, calculated by the simple population standard, do not afford a fairly reliable index of their relative sanitary conditions.

It is true that the Registrar-General's figures under-estimate the amount of the excess in the Lancashire death-rate, compared, for instance, with that in Herefordshire. The *general* rates make this excess, due to sanitary condition, 9·5 per 1,000; whereas, after correction for age distribution, it becomes 12·1 per 1,000. The Registrar-General has continually pointed out the great excess in urban death-rates, and he appears to have understated his case; but this scarcely detracts from the value of his figures, so long as the margin between urban and rural rates remains so large as at present.

We must now more briefly examine the *normal* death-rates in twenty-four large towns. In the first place, as to the eighteen large English towns for which the Registrar-General publishes weekly returns. In most of these large towns the rate of increase is far greater even than in the manufacturing and mining counties of Lancashire, Staffordshire, or Durham; and it is, therefore, but natural we should find that the *normal* death-rate is still lower than in those counties. It *averages* 21·69 in these eighteen towns, the same as the *normal* rate in Lancashire. Notwithstanding the high birth-rate in these towns, the proportion of children under 5 years of age is only 133 in each 1,000 of their population, against 135 in the whole of England and Wales. In the stationary population, however, this proportion is but 98. The proportion per 1,000 at 60 years and upwards in the eighteen towns is only 58, against 75 in all England and 126 in the Life Table population. On the other hand, each 1,000 of the population of these large towns contains 635 persons aged between 5 and 40 years, instead of 550 found in a Life Table population. When we recall the fact that the average death-rate between 5 and 40 years of age is only 8·8 per 1,000, whereas it is 71·7 per 1,000 among persons aged 60 years and upwards, it is easy to comprehend that any interchange between the proportions of a population living at these ages must affect its death-rate at all ages.

The *normal* rate, calculated severally for each of the eighteen towns, is 21·0 in Bradford; 21·1 in Liverpool; 21·3 in Manchester; 21·5 in Portsmouth, Birmingham, Oldham, Nottingham, and Salford; 21·6 in Sheffield; 21·8 in London, Leeds, and Newcastle-upon-Tyne; 22·0 in Leicester and Wolverhampton; 22·1 in Bristol, Hull, and Sunderland; and highest, 23·6 per 1,000 in Norwich. Leaving Norwich out of the question, the *normal* death-rates in these eighteen towns ranged from 21·0 to 22·1, showing an extreme limit of only 1·1 per 1,000, due to the disturbing influence of the varying proportional distribution of their populations at different groups of ages. This extreme limit of error of 1·1 per 1,000 can scarcely be said, even seriously, to depreciate the value of the general uncorrected death-rate, much less to destroy it. This opinion will be further strengthened by a careful study of the following table, arranged on the same principle as that relating to the six English counties, which has been described at some length. The same features are observable in this table, namely, that the difference between the *general* and *normal* death-rates, the zymotic death-rate, the proportion of infant mortality, and the death-rate of persons aged 60 years and upwards, follow, with few exceptions, in the same order as the *general uncorrected* death-rates:—

TABLE II.—*General and Normal Death-Rates in Eighteen Large English Towns in* 1871.

	Annual Death-rate per 1,000 in 1871.	Normal Death-rate.	Difference between Normal and 1871 Rate.	Zymotic Death-rate in 1871.	Deaths under 1 Year to 1,000 Births Registered.	Deaths to 1,000 Living, 60 and upwards.
Total 18 towns	26·9	21·7	5·1	6·5	192	82·2
Portsmouth............	19·3	21·5	− 2·2	3·2	144	74·8
Bristol....................	23·2	22·1	1·1	3·5	165	78·2
Hull........................	23·2	22·1	1·1	4·3	177	67·9
London	24·6	21·8	2·8	6·0	171	76·8
Birmingham	24·9	21·5	3·4	5·4	190	78·9
Oldham	24·9	21·5	3·4	3·8	188	89·3
Bradford................	25·5	21·0	4·5	4·6	209	84·8
Norwich	25·9	23·6	2·3	6·4	200	67·0
Nottingham	26·0	21·5	4·5	5·5	187	81·7
Leeds	26·4	21·8	4·6	5·4	205	84·3
Leicester................	26·8	22·0	4·8	5·9	241	78·7
Wolverhampton....	28·0	22·0	6·0	7·6	185	87·1
Sheffield	28·3	21·6	6·7	7·7	208	84·8
Salford....................	30·4	21·5	8·9	8·1	221	78·2
Manchester............	31·2	21·3	9·9	6·9	221	88·7
Newcastle-on-Tyne	32·2	21·8	10·4	9·3	223	83·7
Liverpool	35·1	21·1	14·0	11·4	269	133·5
Sunderland............	36·5	22·1	14·4	15·5	222	93·5

The case of Norwich is a remarkable exception. As before stated, the *normal* death-rate in this city is 23·6 per 1,000, or nearly 2 per 1,000 in excess of the average *normal* rate in the eighteen towns. A glance at the age distribution of the population of this city will explain this apparent anomaly. The proportion under 5 is only 123 per 1,000, instead of 133 in the eighteen towns; that of persons between 5 and 40 is 590, against 635; and at 60 years and upwards there are so many as 97 per 1,000, whereas the average in the eighteen towns is but 58. It is impossible here to discuss the cause of this large proportion of elderly persons in Norwich, compared with that which prevails in any of the other large English towns. Taken in consideration with the almost continuous existence of a large rate of increase during the past seventy years, it is a circumstance that would repay investigation. At the Census in 1861 the proportion of persons aged 60 and upwards, in Norwich, was still higher than in 1871, namely, 98 in each 1,000.

Before leaving this branch of the subject a word or two will be necessary as to the *normal* death-rate in one or two other towns which were selected for calculation, because of the unusual constitution of their population. These are, Bath and Cheltenham because they contain almost stationary populations, with low birth-rates; Barrow-in-Furness and Middlesborough-on-Tees, on account of their exceptionally rapid increase and high birth-rates; and the City of London proper. In Bath and Cheltenham the proportion of children under five years of age is 100 and 105 respectively, against 133 the average proportion in the eighteen large towns showing large rates of increase, and 98 in a stationary Life Table population. On the other hand the proportion of persons at 60 years of age and upwards was 111 per 1,000 in Bath and 99 in Cheltenham, against but 58 in the eighteen towns. The facts relating to these towns are both valuable and interesting, as proving that the nearer the approach to a stationary population, the nearer do the calculated proportions resemble those in a Life Table population. The example of Bath is especially useful from this point of view, as the proportions of children under five is only slightly in excess, and that of the elderly persons only slightly below, those in a Life Table population. The *normal* death-rate in Bath is so high as 23·3 per 1,000, and in Cheltenham 22·7, against 21·7 the average *normal* rate in the eighteen rapidly increasing large towns. In the City of London we have an example of a somewhat different kind of population; here is a declining population and a low birth-rate giving a comparatively low *normal* death-rate, namely 20·6 per 1,000, which is one per 1,000 lower than the *normal* rate in eighteen large increasing towns. The reason of this is that the children under five years of age in the City only number 96 per 1,000 of the population, and the proportion of persons aged 60 years and upwards is not more than 71, whereas in Bath and Cheltenham we have just found it to be 111 and 99; in a steadily declining population like that of the City we might expect a still nearer approach to the Life Table proportion of 126. With regard to Barrow-in-Furness and Middlesborough, the population has been principally formed by the immigration of young adults, consequently the birth-rate, calculated on the gross population, is remarkably high. We find, therefore, 166 and 162 per 1,000 respectively to be of children under five years of age, against 133 in the eighteen towns, and but 98 in the Life Table population. This excess of young children, in its effect upon the *normal* death-rate is, however, more than counterbalanced by the small proportion of persons in the population living at the age of 60 and upwards; this proportion is not more than 23 and 29 per 1,000 respectively in Barrow and Middlesborough, against 126 in the Life Table population, and 58 in the eighteen large English towns. Bearing these facts in mind it is not surprising to find that the *normal* death-rate in Barrow-in-Furness and Middlesborough is so low as 21·0 and 21·2 per 1,000, notwithstanding the high birth-rate and proportion of children under five years of age. In order to be able to touch on a few other points of interest connected more or less intimately with this subject, it is impossible to devote more time or space for discussing the effect of age distribution upon the *normal* death-rate. It would be desirable that all health officers should calculate this *normal* death-rate for the populations under their control, in order to have a correct standard by which to measure their recorded death-rates, bearing in mind that the sanitary condition of England in the seventeen years 1838-54 was far from satisfactory, and that the average English death-rate in that period exceeded that which prevailed in the healthy districts of England by at least 5 per 1,000 of the population. Normal death-rates, however, whether calculated upon the general English, or Healthy District Life Tables, will form reliable standards by which to measure death-rates calculated on what is called the "national system;" differences may safely be referred to sanitary condition, as this method really corrects for sex and age disturbances. The foregoing figures, however, warrant us in asserting that *uncorrected* death-rates afford fairly reliable indices of the sanitary condition of different populations. It is important to bear in mind, moreover, that the proportion of elderly persons has a much stronger influence in affecting the death-rate than has that of children under five years of age. This is accounted for in the following manner. Among the thirty-one populations used as bases of calculation, the proportion of children under five years only ranged between 96 in London City and 166 in Barrow-in-Furness, a variation of 73 per cent.; whereas the proportion of persons aged 60 years and upwards ranged from 23 per 1,000 in Barrow-in-Furness, to 111 in Bath, showing a variation equal to 383 per cent. If it can be said that the proportion of persons living at *any one* group of ages is the controlling element of the death-rate, it is the proportion of persons living at 60 years and upwards.

It may be useful here to refer to Table B in the Appendix, showing the method of calculating a *normal* death-rate based upon the English Life Table rates, in which not only the age distribution shall be fully taken into account, but due allowance and correction shall be ensured for the varying proportion of the sexes at each group of ages. The population of England and Wales in 1871 is selected for the example, and it is interesting to observe that the *normal* death-rate calculated for the correction of both these disturbing influences is 22·70 per 1,000 against 22·75 calculated on the age distribution of persons without distinction of sexes. No stronger evidence need be produced to show that the influence of the proportion of the sexes in a population is so small as to be scarcely worth correction in order to increase the value of general death-rates for the purpose of estimating the sanitary condition of a population. In Appendix Table C will be found a similarly calculated *normal* standard, based upon the Healthy District Life Table.

The Influence of Birth-Rate upon Death-Rate.—In discussing, as has just been attempted, the general influence of age distribution upon death-rates, the question of the influence of the birth-rate has been more or less indirectly considered. Age distribution depends principally upon the rate of increase of population, and the extreme effect of the varying proportion of persons living at different groups of ages may be observed in a stationary Life Table population, and the population of a town like Barrow-in-Furness. Increase of population is due to two causes; the excess of births over deaths, and immigration. No one questions the fact that immigration, consisting as it almost invariably does of young adults, reduces the death-rate in a population. The influence of the birth-rate is not so well understood. The President of the Health Officers' Association does not stand alone in his erroneous conviction that "the birth-rate is the controlling element of the "death-rate;" there are some who agree with him when he goes further and says, that high death-rates are *caused* by high birth-rates, because he finds that high birth-rates and high death-rates occur in the same populations. Now, the fact that high birth-rates and high death-rates are usually found to occur in the same populations is undoubted; the same may be said as to low birth-rates and low death-rates. The conclusion, however, that the high birth-rate causes the high death-rate, or that the low birth-rate causes the low death-rate, is not only rash, but utterly unsound and untenable on all grounds.

First, as to the influence of the birth-rate upon the age distribution, which within certain small extreme limits (about 2 per 1,000) does disturb the general death-rates. Let us refer to the example of the six counties before-mentioned. The birth-rate in the three agricultural counties averaged 30·6 per 1,000 in 1871, while it was 39·2 per 1,000 in the three urban counties. The death-rates in the three rural counties was 20·0, and in the urban counties 26·9. This excessive death-rate it is sought to attribute to the high birth-rate. This theory is disposed of by the calculated *normal* death-rate, which, all sanitary conditions being equal, and after full allowance for the different age distribution, averages 23·8 in the three rural counties, and only 22·0 in the three urban counties. The age distribution in those counties where the birth-rate is high, as compared with that in those where it is low, favours the general *normal* rate to the extent of 1·8 per 1,000, instead of, as has been asserted, in any way explaining the high death-rate. The same features are noticeable in the different town populations; for instance, in Bath and Cheltenham where the birth-rate in 1871 did not exceed 26·4 and 27·4, the *normal* death-rate is 23,3 and 22·7 per 1,000, whereas in Barrow-in-Furness and Middlesborough-on-Tees, with birth-rates so high as 44·9 and 45·2 per 1,000, the *normal* death-rates are only 21·0 and 21·2 per 1,000. As in the counties, so in the towns, the places with the highest birth-rates show the lowest *normal* death-rates. The effect of the excessive number of infants in populations with high birth-rates, is more than balanced by that of the excessive number of children and adults between 5 and 60 years of age, when the rate of mortality is low, and by that of the small proportion of persons aged 60 years and upwards.

It has puzzled many, whose knowledge of these subjects is more or less elementary, to understand why, in a population with a continuously high birth-rate, these inequalities in the proportion living at the different groups of ages do not, in a series of years, adjust themselves. It must be remembered, however, that an annually increasing number of births forms a continuously-recurring wave which is always raising the proportions of those living at the lower ages, and which cannot cease its disturbing influence, unless the birth-rate were for a lengthened period to remain stationary, as is assumed in a Life Table population. It follows, also, that the larger the excess of births over deaths, the larger is the disturbance of the proportions living at different ages ; and, if the result of the thirty-two examples can be accepted, the lower will be the *normal* death-rate. The limits within which rural rates are overstated, and urban rates understated, by the Registrar-General's death-rates, have already been pointed out.

In dismissing the false theory that the birth-rate governs the death-rate, and the unsound conclusion that the tendency of high birth-rates is to raise the death-rates, it appears necessary, or at least desirable, to give some explanation of the undoubted fact that death-rates are usually high where the birth-rates are high.

In all the English counties showing high birth and death-rates, the density per acre, and the percentage of urban population, is considerably above the average. In the three urban counties, taken as examples for the purposes of this paper, the population in 1871 averaged 1·6 persons to an acre, and the proportion of urban population was 65·8 per cent. In the three rural counties, on the other hand, there were 3 acres to each inhabitant, and only 27·4 per cent. of the population dwelt in large towns.

It is needless here to discuss the variety of causes which produce high death-rates in towns, and in those counties which contain a large percentage of urban population. This is a fact which will not be disputed even by the opponents of the "national system." Let us, therefore, proceed at once briefly to inquire into the causes which account for the high birth-rates prevailing in urban populations. A consideration of the figures in the accompanying table will materially assist this inquiry.

TABLE III.—*Bearing upon the Cause of the Difference between Rural and Urban Birth-Rates.*

Counties.	1 Births to 1,000 Persons Living, 1871.	2 Proportion of *Married* Women, Aged 15—50, to 100 Women at the same Ages in 1871.	3 Proportion of Married Women under 25, to 100 Married Women Aged 15—50.	4 Proportion of Legitimate Births in 1871 to 100 Married Women, Aged 15—50.
Herefordshire....	30·2	50·6	9·7	23·9
Dorsetshire	30·4	50·1	10·3	24·1
Devonshire	30·8	48·1	11·1	24·0
Lancashire	37·9	51·8	13·8	25·6
Staffordshire	40·5	58·6	15·1	27·6
Durham	42·4	61·6	17·1	28·5

By the figures in this table we find that the proportion of married women aged 15—50, to 100 women at those ages in 1871, averaged 48·8 per cent. in the three rural counties, whereas it was 54·5 in the three urban counties. In the several counties this proportion ranged from 48·1 per cent. in Devonshire, to 61·6 in Durham. It appears that an undoubtedly larger proportion of the women living at the child-bearing ages are married in urban than in rural counties. Beyond this, women appear to marry at a younger age in town than in country. For instance, in the three rural counties, the proportion of married women under 25 years, to all married women between the ages 15 and 50, was little more than 10 per cent., whereas in the three urban counties it was nearly 1 per cent. In the individual counties, this proportion of young to total married women at the child-bearing ages ranged from 9·7 per cent. in Herefordshire to 17·1 per cent. in Durham; see col. 3 in the preceding table. In col. 4 is shown the proportion of legitimate children born in 1871 to each 100 married women aged between 15 and 50 years in the several counties; this appears to range regularly upwards from 23·9 in Herefordshire to 28·5 in Durham, and whereas it was 24 per cent. in the three rural counties, and nearly 27 per cent. in the urban counties. Within the limits of this paper it is impossible further to pursue this inquiry into the cause of the higher rate of fecundity in urban populations. It appears certain that not only a larger proportion of women at the child-bearing ages are married, but that a larger proportion of them marry young in towns. Each of these facts tends to raise the birth-rates, but it is not so easy to decide how far the number of children born to 100 married women depends upon the proportions of the married women at the younger ages; the facts in the table now under consideration tend, however, strongly to the conclusion that this proportion has a decided influence upon the birth-rate. It may, however, safely be accepted that both high birth-rates and high death-rates are generally due to a large proportion of urban population. Moreover, that each of these effects is the result of distinctly separate causes, having little in common; and that, instead of the high death-rate being caused by the high birth-rate, the age distribution which is essential to a high birth-rate would necessarily (all sanitary conditions being equal) produce a lower death-rate at all ages than that age distribution which invariably exists where a low birth-rate prevails.

It is impossible here to discuss the theory urged and accepted in some quarters, that a high birth-rate is an effort of nature to compensate for a high rate of mortality, and that therefore the high birth-rate may to some extent be caused by the high death-rate. Such a theory is partly based on observations of high birth-rates following immediately upon years of high mortality from plague or pestilence. It requires, however, careful examination, as does another theory that years of plenty and high wages raise the birth-rate beyond what is the natural result of an increased number of marriages, and a larger proportion of early marriages. There are two circumstances, however, that have an undoubted influence in controlling the birth-rate, without attributing to the bulk of the population any knowledge of the doctrines of Malthus for regulating the increase of population. The prevalence of a high rate of infant mortality stimulates the birth-rate; the interval between child-bearing being materially shortened by the early death of the woman's offspring. Again, medical practitioners among a really poor population, well know that mothers often suckle their children up to two or three years (a practice dangerous alike to mother and child) with the avowed object of prolonging the interval between their child-bearings.

The consideration of the effect of sex proportion and age distribution upon the general death-rates has occupied so much time and space that it will only be possible, on the present occasion, briefly to mention the third and fourth classes of objections to the reliability of the death-rates calculated on the "national system."

III.—*The Influence of Estimates of Population upon the Reliability of Death-Rates.*

It is asserted that it is impossible to calculate reliable death-rates upon estimates of population based upon decennial enumerations. It is undoubtedly unsafe in all cases to assume that the rate of increase prevailing in a given population during one decade will be maintained during the next. This is especially the case in town districts, and for this reason all those feeling a strong interest in the reliability of vital statistics never tire of urging the necessity for at least a quinquennial census, at any rate in large towns.

Until Parliament, however, is convinced that a more frequent census is desirable, it is better to endeavour to ascertain how far erroneous estimates of population affect the value of general death-rates, instead of rashly asserting that all death-rates on this account are unreliable. The estimate of the population of England and Wales for the *middle* of the year 1871, based upon the observed rate of increase in twenty years prior to 1861, was not quite half a million (471,791) less than the number estimated from the enumerated population in 1871. Let us see what extent of error this produced in the birth and death-rates. The birth and death-rates calculated on the more correct population were equal to 35·0 and 22·6 per 1,000; whereas the rates produced by the under-estimated population were 35·7 and 23·1 respectively. This, it must be remembered, was the extreme extent of error, as during the preceding ten years the amount of error had been slowly increasing to this point.

With regard to London, the estimate of the population was a remarkably happy one, as was pointed out at the time by the Registrar-General in his weekly return, with excusable feelings of self-congratulation. The population of the Metropolitan registration area for the census day, estimated by the usual method, was actually within 6,629 of the 3,254,260 persons enumerated. It happened that the declining rate of increase which prevailed in the twenty years, 1841-61, continued almost precisely identical during the ten years 1861-71. This system of estimate, however, cannot always be depended upon, and we shall see that much larger errors were discovered in the estimates for the other large towns. The decennial increase per cent. in six of the seventeen large English towns, for which the Registrar-General published weekly returns in 1871, was larger in the decade 1861-71 that it had been in the preceding ten years, whereas in the eleven other towns the increase per cent. was smaller. The most remarkable cases of variation in the rates of increase were Bradford, Leicester, and Portsmouth. In Bradford and Leicester the increase between 1851 and 1861 was only 2·4 and 12·3 per cent., whereas it was 37·3 and 39·7 respectively in the last decade. In Portsmouth, on the other hand, the increase was 31·5 per cent. in the first, whereas it declined to 19·2 in the second decade. The Registrar-General published in his quarterly return for June, 1871, a statement as to the extent of error in the rates of mortality in these seventeen large towns for the second quarter of that year. The rates calculated upon the *estimated* populations were there compared with the more correct rates calculated upon the then just *enumerated* populations. In only three of the towns did the extent of this error amount to 2 per 1,000 in the rate of mortality; the death-rate had been *understated* 2 per 1,000 in Liverpool, and 2·1 per 1,000 both in Birmingham and Hull by an *over-estimate* of the population. It will be remembered that this element of error had been slowly increasing to this maximum during the ten years 1861-71. The Registrar-General never refuses to revise his estimates of town populations if local authorities furnish any sufficient evidence, such as authentic returns of the numbers of inhabited houses, showing that the estimate calculated on the usual method is manifestly incorrect. Some care, however, is requisite in properly estimating the value of claims for increasing the estimate of the population of a town. It is a curious fact that the Registrar-General has never had a complaint as to his estimate of population for a town being *too high*, although this is far the more usual result of assuming that the rate of increase in towns during one decade will be maintained in the next. If a town be suffering from a high death-rate, there is a natural tendency upon the part of the authorities to wish the estimate of population to be revised in order to depress the rate of mortality; hence the necessity for careful investigation of claims for such increase. During the decade 1861-71 the Registrar-General amended his estimate of the population of Leicester, Nottingham, Salford, Bradford, Leeds, and Hull, upon local application, supported by corroborative evidence. In the cases of Nottingham, Salford, Leeds, and Bradford this departure from the usual system proved successful, but in Hull the use of the new estimate based upon local returns of the number of inhabited houses showed an excess of 13,000, which had the effect of understating the rate of mortality by 2·1 per 1,000. In the Registrar-General's quarterly return above-mentioned, the insufficiency of a decennial census for forming reliable estimates of town population was urged and the following sentences occur: "In France, where the movement of "population is slower and not subject to such variable rates of increase "or decrease as in England, a census is held quinquennially. How "much more necessary is a quinquennial enumeration in England, "especially in our largest towns?" Without a more frequent census enumeration the Registrar-General must adopt, for the purposes of calculating rates of mortality, the best available means for estimating population. There is, however, little reason to doubt that these estimates, if revised in certain cases, with the help of authentic local information, or after comparison with the birth-rate, will afford the means for calculating death-rates which may safely be accepted as reliable indices of sanitary condition.

The Town Council at Barrow-in-Furness has just carried out a local census, which shows that the population in that borough has increased from 18,245 in 1871, to 41,068, equal to an increase of 127 per cent. There is probably no other example of such a rapid increase since 1871 in any other section of the English population, but it may be useful as an incentive to other towns to organise local censuses, to state that the recent census in Barrow was carried out by the police, and that the total cost of the enumeration was under 20*l.**

IV.—*The Effect of Migration upon Death-Rates.*

We now approach the last class of asserted disturbing influences. The influence of migration upon the value of death-rates is the more difficult to discuss satisfactorily, on account of the impossibility of obtaining reliable data for calculation. This is one of the charges which is based more on theory than on fact. The President of the Health Officers' Association asserted that the immigration of young adult lives into towns ought to be corrected for by the addition of a certain number of deaths, to compensate for the deaths of other children of whom the immigrants were the survivors. This mode of correction would be very one-sided; a similar addition would have to be made to the population. In calculating the *normal* death-rate of a population, in the manner before suggested, the effect of the immigration of adults is, however, fully taken into account so far as the excess in the numbers living at those ages is concerned. There is doubtless a principle of selection at work which causes immigrants to be somewhat above the ordinary standard of health, and to this extent town populations derive an advantage, but this is an advantage the real effect of which it is almost impossible to estimate. Still more difficult is it to estimate the reliability of the assertion that so large a proportion of town residents die away from the town in which the fatal diseases have been contracted, as seriously to detract from the value of the general death-rate. In Mr. T. A. Welton's valuable paper upon "The effect of Migrations in disturbing local rates of Mortality," especially dealing with the statistics of London and the surrounding rural counties, the result of much useful labour will be found. The fact which Mr. Welton's paper brought most prominently into notice was that the rate of mortality in towns between the ages of 15 and 25, especially among females, is lower than that which prevails in the outer ring of rural population. This is an undoubted fact, but when we seek for an explanation of the fact the difficulty of finding a theory which can be supported with evidence becomes apparent. Mr. Welton at once dismisses the idea that it is possible for the rate of mortality between the ages 15—25, especially among females, to be lower in London than in the surrounding country; and therefore assumes that the apparent anomaly is caused by deaths of London residents occurring outside London. This theory is more easily asserted, than supported by reliable evidence, or satisfactorily disproved. It is a subject which requires most careful investigation, especially as there is a counter theory of explanation which is worth consideration. Of all females living in London at the census in 1871 between the ages 15 and 25, no less than 34·1 per cent. were domestic servants. What proportion of these domestic servants in London are immigrants from the surrounding rural districts there are no means for ascertaining, but it seems really probable that young women living in domestic service in London enjoy better health, and are liable to a lower rate of mortality, than women of the same age living at home in agricultural districts. Not only do they live under better sanitary conditions as to diet, house accommodation, and clothing, but as the vast majority of domestic servants are single women, and are not subject to the accidents of childbirth, it is but natural to expect that a lower death-rate would prevail among them than among their country sisters. This is mere theory, but it is a theory which supports the facts shown by the Registrar-General's figures, whereas the theory of Mr. Welton is formed in support of an opinion that the Registrar-General's figures cannot be correct because they are difficult to explain. London and all other towns undoubtedly receive many extra-urban patients in their hospitals, whose deaths unduly raise the urban rates of mortality. In the face of the difficulty of ascertaining from the death-register the locality from which these patients are admitted, the Registrar-General in his weekly returns, although distributing institution deaths throughout the metropolitan area, makes no correction for the deaths of extra-metropolitan residents, on the ground that these are probably balanced by the deaths of town residents, who die outside the metropolis. Nothing but strictly impartial local inquiry will throw a satisfactory light upon this class of objections to the reliability of death-rates calculated on the "national system;" and until they are better understood, and their explanation based upon reliable facts, it would be excessively dangerous to make corrections for them.

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* For this information relative to the Census at Barrow-in-Furness, the author is indebted to the courtesy of the Mayor of that borough.

V.—*Conclusion.*

In conclusion, it may be useful briefly to summarise the facts which it has been the object of this paper to establish. In the *first* place, that the influence of the varying proportion of the sexes in a population in disturbing the value of the general death-rate is so inconsiderable that it may safely be ignored. *Secondly*, that the extreme limit of disturbance produced in any population, by the variety of age distribution, does not exceed 2 per 1,000 in the rate of mortality; and, except in a few cases, the limit as affecting town populations is only *one* per 1,000. *Thirdly*, that the age distribution indispensable to a high birth-rate, apart from the effect of the birth-rate itself, which assists in the same direction, actually produces a lower *normal* death-rate than the age distribution which prevails where the birth-rate is low. *Fourthly*, that both high birth-rates and high death-rates are induced by a large proportion of urban population, but arise from distinct causes, and are not dependent the one on the other. *Fifthly*, that however desirable it may be to have census enumerations taken more frequently than once in ten years, past experience shows that estimates of population do not to any considerable extent interfere with the value of the Registrar-General's figures, for the purposes they are intended to serve. *Sixthly*, that although the rate of mortality in London and other towns between the ages of 15 and 25, especially among females, is lower than in the surrounding districts, it is dangerous to assume that the number of deaths of town residents occurring elsewhere is sufficiently large to interfere with the value of the Registrar-General's figures for general deductions. And, *finally*, that not one of these disturbing influences, or the combined result of them all, would so affect a death-rate, calculated upon the "national system," as to warrant its being disregarded as a test of sanitary condition.

So long as the range of death-rates in different sections of the English population is so great as from 17 to 40 per 1,000, it is easy and safe to draw sound conclusions as to sanitary condition, without any elaborate corrections for sex and age distribution, or other disturbing influences. At present the use of even the English Life Table standard will show the necessity for an amount of sanitary work in towns, which will fully tax the energies of the present medical officers of health. When the standard of health of that Table is more generally reached, the more ambitious standard of the Healthy District Life Table will have to be adopted, according to which the death-rate in England and Wales, after due allowance for sex and age distribution, would not exceed 16·6 per 1,000, instead of the 22·7 shown by the lower standard of the English Life Table.

Time and space alike forbid any more than a passing reference to the valuable tables upon the mortality of the "Upper Classes," recently prepared and published by Mr. Ansell, jun., actuary to the "National Life Assurance Society." They show most forcibly the result of the better sanitary condition enjoyed by the middle and upper classes, compared with that in which the labouring classes (comprising the vast majority of the nation) exist. The annual rate of mortality among infants under 1 year of age, among the upper classes, does not (according to these tables) exceed 80 per 1,000; whereas, even in the healthy districts of England, the rate averages

103: and between 1 and 5 years, it is but 13 per 1,000, against 21. From 5—20, and from 20—40, the Upper Class and Healthy District Life Tables are nearly identical; but, after 40 years of age, the upper class rates are again decidedly lower than those in the healthy districts. The solution of the social problem, how to assimilate more nearly the sanitary condition of the working, and of the well-to-do classes, is one of the most important objects of sanitary reform.

The kind of criticism to which the Registrar-General's death-rates have during the past few years been subjected, is to be seriously regretted.

The want of confidence that would be engendered among health officers were the adverse criticisms on the death-rates and other figures of the Registrar-General to remain unanswered, would materially impede sanitary progress. The objection to the term "preventable," as applied to deaths from zymotic diseases, comes badly from a health officer; and still more to be regretted is the conclusion arrived at by the President of the Society of Medical Officers, that "an increase in the rate of mortality is often a sign "of prosperity: for a high death-rate means a high birth-rate, and "a high birth-rate is the invariable concomitant of prosperity." Again, it is almost impossible to over-estimate the injurious consequences that would arise from the acceptance of the unfounded theory of a well known critic of the "national system," who ventures to deny that a declining death-rate is a sign of sanitary progress, and goes so far as to assert that "a diminution of the rate "of mortality will be found to co-exist generally with an augmenta-"tion of the rate of sickness."

If these unsound arguments be to any extent the result of a groundless want of confidence in the reliability of the Registrar-General's figures for general conclusions as to sanitary condition, and if this paper serve in any way to restore or strengthen that confidence, it will not have been written in vain.

APPENDIX.

Table A.—*Normal Death-Rates in Different Populations, Calculated on Males and Females, Uncorrected for Age Distribution.*

Life Table annual rate of mortality per 1,000 { Males........ 25·0534
Females.... 23·8965

	Proportional Numbers in a Population of 1,000.		Annual Deaths in 1,000 of Population according to Life Table Rate of Mortality.		
	Males.	Females.	Males.	Females.	Persons. Casting of two Preceding Columns.
England and Wales	487	513	12·20	12·26	24·46
Three Rural Counties—					
Herefordshire	498	502	12·48	12·00	24·48
Dorsetshire	490	510	12·28	12·19	24·47
Devonshire	474	526	11·88	12·57	24·45
Three Urban Counties—					
Lancashire	482	518	12·08	12·38	24·46
Staffordshire........................	503	497	12·60	11·88	24·48
Durham	517	483	12·95	11·54	24·49
Eighteen large towns	475	525	11·90	12·55	24·45
Nottingham	456	544	11·42	13·00	24·42
Norwich	456	544	11·42	13·00	24·42
London................................	468	532	11·72	12·71	24·43
Portsmouth	507	493	12·70	11·78	24·48
Bristol	455	545	11·40	13·02	24·42
Hull	492	508	12·33	12·14	24·47
Liverpool	487	513	12·20	12·26	24·46
Oldham	482	518	12·08	12·38	24·46
Bradford	473	527	11·85	12·59	24·44
Manchester	478	522	11·98	12·47	24·45
Wolverhampton	500	500	12·53	11·95	24·48
Birmingham........................	488	512	12·23	12·24	24·47
Newcastle-on-Tyne	495	505	12·40	12·07	24·47
Leeds	487	513	12·20	12·26	24·46
Sheffield	502	498	12·58	11·90	24·48
Sunderland	486	514	12·18	12·28	24·46
Salford	475	525	11·90	12·55	24·45
Leicester	472	528	11·83	12·62	24·45
"London City" district	488	512	12·23	12·24	24·47
Bath	403	597	10·10	14·27	24·37
Cheltenham	413	587	10·35	14·03	24·38
Barrow-in-Furness	577	423	14·46	10·11	24·57
Middlesborough	544	456	13·63	10·90	24·53

TABLE B.—*Normal Death-Rate in England and Wales, Calculated on the English Life Table Standard, with Due Allowance for the Sex and Age Proportions in the Population.*

Ages.	Males.		Females.		Deaths in 1,000 of the English Population.		
	Annual Rate of Mortality per 1,000, according to the English Life Table.	England. — Porportion to 1,000 Persons, 1871.	Annual Rate of Mortality per 1,000, according to the English Life Table.	England. — Proportion to 1,000 Persons, 1871.	Males.	Females.	Persons.*
All ages	25·0534	486·92	23·8965	513·08	11·4482*	11·2552*	22·7034
Under 1 year	183·2647	15·18	147·4882	15·06	2·7820	2·2212	5·0032
1— 5........	36·9888	52·47	36·3214	52·51	1·9408	1·9072	3·8480
5—20........	7·0126	160·98	7·2009	160·92	1·1289	1·1588	2·2877
20—40........	10·1210	140·12	10·4821	154·29	1·4182	1·6173	3·0355
40—60........	19·4064	83·60	17·1884	90·13	1·6224	1·5492	3·1716
60 and upwards	73·9345	34·57	69·7419	40·17	2·5559	2·8015	5·3574

* These numbers are obtained by casting the deaths at each group of ages, and not by the application of the Life Table rates at "all ages." The deaths of persons in the last column are obtained by casting the deaths at each group of ages among males and females.

TABLE C.—*Normal Death-Rate in England and Wales, Calculated on the Healthy District Life Table Standard, with Due Allowance for Sex and Age Proportions in the Population.*

Ages.	Males.		Females.		Deaths in 1,000 of the Population.		
	Annual Rate of Mortality per 1,000, according to Healthy District Life Table.	England. — Proportion to 1,000 Bersons, 1871.	Annual Rate of Mortality per 1,000, according to Healthy District Life Table.	England. — Proportion to 1,000 Persons, 1871.	Males.	Females.	Persons.*
All ages	20·3715	486·92	20·0121	513·08	8·1789*	8·4540*	16·6329
Under 1 year	112·8020	15·18	92·6445	15·06	1·7123	1·3952	3·1075
1— 5........	21·4658	52·47	20·5640	52·51	1·1263	1·0798	2·2061
5—20........	5·3957	160·98	6·1925	160·92	0·8686	0·9965	1·8651
20—40........	8·0961	140·12	8·8238	154·29	1·1344	1·3614	2·4958
40—60........	13·3406	83·60	12·6498	90·13	1·1153	1·1401	2·2554
60 and upwards	64·2745	34·57	61·7625	40·17	2·2220	2·4810	4·7030

* These numbers are obtained by casting the deaths at each group of ages, and not by the application of the Life Table rates at "all ages." The deaths of persons in the last column are obtained by casting the deaths at each group of ages among males and females.

TABLE D.—*The Normal Death-Rate in Thirty-One Sections of the Population of England and Wales, compared with the Birth-Rate in* 1871, *and the observed Proportion of the Enumerated Population in that Year, Living at Three Groups of Ages.*

	Births to 1,000 Persons Living, 1871.	Normal Death-rate.	Proportion per 1,000 in Enumerated Population, 1871.		
			Children under 5 Years.	At Ages 5—60.	Persons Aged 60 and upwards.
England and Wales	35·0	22·7	135	790	75
Three Rural Counties—					
Herefordshire	30·2	24·0	127	771	102
Dorsetshire	30·4	23·7	130	775	95
Devonshire	30·8	23·8	125	775	100
Three Urban Counties—					
Lancashire	37·9	21·7	138	806	56
Staffordshire	40·5	22·6	150	789	61
Durham	42·4	22·2	154	793	53
Eighteen large towns	36·2	21·7	133	808	59
Nottingham	33·3	21·5	113	813	74
Norwich	34·1	23·6	123	780	97
London	34·5	21·8	130	808	62
Portsmouth	34·7	21·5	131	810	59
Bristol	35·0	22·1	128	802	70
Hull	36·6	22·1	136	801	63
Liverpool	37·1	21·1	134	818	48
Oldham	37·1	21·5	137	811	52
Bradford	38·0	21·0	132	819	49
Manchester	38·4	21·3	135	814	51
Wolverhampton	38·7	22·0	143	800	57
Birmingham	39·0	21·5	140	809	51
Newcastle-on-Tyne	39·4	21·8	142	803	55
Leeds	39·9	21·8	144	804	52
Sheffield	40·4	21·6	147	807	46
Sunderland	40·7	22·1	147	797	56
Salford	40·9	21·5	142	809	49
Leicester	41·1	22·0	136	801	63
"London City" district	24·3	20·6	96	833	71
Bath	26·4	23·3	100	789	111
Cheltenham	27·4	22·7	105	796	99
Barrow-in-Furness	44·9	21·0	166	811	23
Middlesborough	45·2	21·2	162	809	29

Table E.—*Age Distribution of Thirty-One Sections of the English Population, including Six Counties and Twenty-Two Large Towns; with the Annual Deaths per* 1,000, *Calculated upon the English Life Table Standard.* (*See No.* 32 *in this Table.*)

Groups of Ages.	Proportion per 1,000 in Enumerated Population, 1871.	Annual Deaths at Normal Rate.	Proportion per 1,000 in Enumerated Population, 1871.	Annual Deaths at Normal Rate.	Proportion per 1,000 in Enumerated Population, 1871.	Annual Deaths at Normal Rate.
	1 England and Wales.		2 Herefordshire.		3 Dorsetshire.	
All ages............	1000·00	22·7491	1000·00	24·0455	1000·00	23·7432
Under 5 years	135·22	8·8875	126·71	8·3282	129·99	8·5437
5—20	321·90	2·2875	321·93	2·2877	328·71	2·3359
20—40	294·41	3·0324	263·21	2·7111	267·98	2·7602
40—60	173·73	3·1793	186·27	3·4088	177·87	3·2551
60 and upwds.	74·74	5·3624	101·88	7·3097	95·45	6·8483
	4 Devonshire.		5 Lancashire.		6 Staffordshire.	
All ages............	1000·00	23·8412	1000·00	21·6951	1000·00	22·5723
Under 5 years	125·16	8·2263	137·68	9·0492	150·22	9·8734
5—20	321·75	2·2864	320·71	2·2790	339·59	2·4132
20—40	269·19	2·7727	315·56	3·2503	286·09	2·9467
40—60	183·61	3·3602	170·30	3·1166	163·52	2·9925
60 and upwds.	100·29	7·1956	55·75	4·0000	60·58	4·3465
	7 Durham.		8 18 Large Towns.		9 Nottingham.	
All ages............	1000·00	22·2426	1000·00	21·6918	1000·00	21·5238
Under years	154·34	10·1442	133·29	8·7606	113·46	7·4573
5—20	334·33	2·3758	306·45	2·1777	320·04	2·2743
20—40	305·91	3·1509	328·19	3·3804	313·85	3·2327
40—60	152·80	2·7963	173·58	3·1766	179·01	3·2760
60 and upwds.	52·62	3·7754	58·49	4·1965	73·64	5·2835
	10 Norwich.		11 London.		12 Portsmouth.	
All ages............	1000·00	23·6095	1000·00	21·7905	1000·00	21·5186
Under 5 years	123·39	8·1100	129·95	8·5411	130·71	8·5911
5—20	314·63	2·2358	297·06	2·1110	306·67	2·1793
20—40	275·50	2·8377	333·65	3·4366	335·25	3·4531
40—60	189·50	3·4679	177·19	3·2427	168·73	3·0878
60 and upwds.	96·98	6·9581	62·15	4·4591	58·64	4·2073

Note.—The death-rate at all ages is obtained by casting the deaths at each group of ages.

TABLE E.—*Age Distribution of Thirty-One Sections of Population—Contd.*

Groups of Ages.	Proportion per 1,000 in Enumerated Population, 1871.	Annual Deaths at Normal Rate.	Proportion per 1,000 in Enumerated Population, 1871.	Annual Deaths at Normal Rate.	Proportion per 1,000 in Enumerated Population, 1871.	Annual Deaths at Normal Rate.
	13 Bristol.		14 Hull.		15 Liverpool.	
All ages	1000·00	22·0811	1000·00	22·1341	1000·00	21·0680
Under 5 years	128·14	8·4222	136·18	8·9506	134·22	8·8218
5—20	316·40	2·2484	307·65	2·1862	307·71	2·1866
20—40	313·93	3·2335	320·50	3·3012	336·50	3·4660
40—60	171·24	3·1338	172·37	3·1545	174·07	3·1856
60 and upwds.	70·29	5·0432	63·30	4·5416	47·50	3·4080
	16 Oldham.		17 Bradford.		18 Manchester.	
All ages............	1000·00	21·4557	1000·00	21·0123	1000·00	21·2848
Under 5 years	137·24	9·0203	132·05	8·6791	134·89	8·8658
5—20	319·10	2·2676	310·38	2·2056	309·26	2·1977
20—40	317·59	3·2712	334·06	3·4408	332·10	3·4206
40—60	174·44	3·1923	174·93	3·2013	173·12	3·1682
60 and upwds.	51·63	3·7043	48·58	3·4855	50·63	3·6325
	19 Wolverhampton.		20 Birmingham.		21 Newcastle-on-Tyne.	
All ages............	1000·00	21·9992	1000·00	21·4583	1000·00	21·8416
Under 5 years	143·01	9·3995	140·56	9·2385	142·19	9·3456
5—20	337·89	2·4011	329·98	2·3449	315·37	2·2411
20—40	292·10	3·0086	314·77	3·2421	323·56	3·3327
40—60	170·20	3·1147	164·10	3·0031	164·31	3·0070
60 and upwds.	56·80	4·0753	50·59	3·6297	54·57	3·9152
	22 Leeds.		23 Sheffield.		24 Sunderland.	
All ages............	1000·00	21·8242	1000·00	21·5807	1000·00	22·1091
Under 5 years	143·54	9·4343	147·49	9·6940	147·00	9·6618
5—20	315·71	2·2435	324·51	2·3060	334·92	2·3800
20—40	319·15	3·2872	321·35	3·3099	303·31	3·1241
40—60	169·14	3·0953	160·08	2·9295	158·40	2·8988
60 and upwds.	52·46	3·7639	46·57	3·3413	56·37	4·0444

Note.—The death-rate at all ages is obtained by casting the deaths at each group of ages.

TABLE E.—*Age Distribution of Thirty-One Sections of Population—Contd.*

Groups of Ages.	Proportion per 1,000 in Enumerated Population, 1871.	Annual Deaths at Normal Rate.	Proportion per 1,000 in Enumerated Population, 1871.	Annual Deaths at Normal Rate.	Proportion per 1,000 in Enumerated Population, 1871.	Annual Deaths at Normal Rate.
	25 Salford.		26 Leicester.		27 "London City" District.	
All ages…………	1000·00	21·5208	1000·00	21·9621	1000·00	20·6097
Under 5 years	141·60	9·3068	136·03	8·9407	96·35	6·3327
5—20 …………	312·76	2·2225	324·49	2·3059	303·54	2·1570
20—40 …………	330·54	3·4046	314·73	3·2417	334·18	3·4421
40—60 …………	165·51	3·0289	161·87	2·9623	194·62	3·5616
60 and upwds.	49·59	3·5580	62·88	4·5115	71·31	5·1163
	28 Bath.		29 Cheltenham.		30 Barrow-in-Furness.	
All ages…………	1000·00	23·2965	1000·00	22·6722	1000·00	21·0424
Under 5 years	99·83	6·5614	104·83	6·8901	165·69	10·8902
5—20 …………	293·93	2·0887	311·75	2·2154	289·28	2·0557
20—40 …………	300·52	3·0954	301·24	3·1028	389·97	4·0167
40—60 …………	194·28	3·5554	183·02	3·3494	131·82	2·4124
60 and upwds.	111·44	7·9956	99·16	7·1145	23·24	1·6674
	31 Middlesborough.		32 English Life Table Population.		33 Healthy District Life Table Population.	
All ages…………	1000·00	21·2064	1000·00	Annual Death-rate per 1,000.	1000·00	Annual Death-rate per 1,000.
Under 5 years	162·40	10·6739	98·01	65·726	89·81	39·442
5—20 …………	310·59	2·2071	255·10	7·106	239·25	5·790
20—40 …………	358·09	3·6883	295·04	10·300	282·95	8·453
40—60 …………	140·00	2·5621	225·69	18·301	231·42	13·003
60 and upwds.	28·92	2·0750	126·16	71·748	156·57	63·012

Note.—The death-rate at all ages is obtained by casting the deaths at each group of ages.

Discussion *on* Mr. Humphreys's Paper.

Dr. Letheby, after thanking the President for having done him the honour to invite him to discuss the paper, said that when he read the title of the paper, and saw the name of the author, he thought he would not be far wrong in assuming that it was perhaps an official reply to the inaugural address delivered by himself as President to the Society of Medical Officers of Health. He must candidly admit that he fully endorsed the observations which had been made by the author of the paper, in so far that it seemed that those who acquired their knowledge on this subject were so engrossed in what might be termed a multitude of figures that they arrived at different results from those who, like the medical officers of health, were engaged in the investigation of sanitary measures. It was impossible for him at the moment to answer the observations in the paper. There was a mist and confusion about them which he was scarcely able at a glance to understand; but in so far as he did understand them, he thought they went largely to prove the statement he had made, that there were other influences at work in affecting the death-rates of a community than the mere sanitary conditions of that community. The principal disturbing influence which had been made the prime subject of consideration in his address was the migration of population, and this part of the subject had been dismissed in comparatively few words at the end of the paper. With regard to the metropolis, looking at the returns of the Registrar-General, it would be found that one-half of the population of London was not born in it; and that the growth of the population of London in excess of what might be termed its natural growth, would amount to a proportion which would show that a large majority of the population of London had never been rated in what might be termed births *in* the metropolis, or rated in regard to the deaths that were incidental to the production of a population. Taking it, as stated in his paper, that the proportion of the population was estimated by the growth above the natural increase, the excess of registered births over deaths in the twenty years 1851-71 was only 595,000, or about 25 per cent. The difference between that and the other was 296,923, or nearly 13 per cent. This was clearly referable to the additions made to the population by the entrance into it of fresh lives, who took the place of those who, from sickness or otherwise, had left the metropolis to die elsewhere. In addition to that, there were 296,923 persons who contributed to the total increase of the population. From the experience which the medical officers of health had, he had no doubt that the average age of 20, fixed by them as the age of immigrants to London, was a fair one; and when it was asked how many deaths would take place of those born in London before a proportion of 296,923 adults could be obtained, it would be found that probably only about 60 per cent. of those who were born in London reached the age of 20 years, and that involved 494,872 births and 197,949 deaths, not one of which had been found upon the registers of London. It would be found, therefore, that there was a very large addition to the population of London without its being made at the cost of its production; and on the other hand there was a large diminution in the proportion rated of the deaths of the metropolis in consequence of people living in it leaving, and having their places filled with young and healthy lives. That was not only shown by reference to the growth of the population, but by what the author of the paper had directed attention to, that there was a great and notable difference in the relative proportion of adults in the prime of life in London as compared with the country. It was also indicated by another fact pointed out by the author, namely, that the mortality of adults between 25 and 40 in London was considerably less than in the surrounding districts, leading to the belief that when people get sick in London they leave it, and die elsewhere. This was a subject which the author had treated in a very brief and imperfect manner. He was at issue with the author of the paper when he stated that the death-rate was to be taken as a reliable indication of the sanitary condition of a town or district. He held that there were influences outside the mere sanitary condition which affected the death-rate of a community. Supposing for one moment that the death-rate was a test of sanitary condition, and that, as stated by the Registrar-General, when the death-rate exceeded 17 per 1,000, it was an indication of something unsanitary, what would be the practical teaching of such an assertion? Would it point out to the medical officers of health the means whereby, in a town population, they would be enabled to reduce the death-rate to the condition of that in the country? Would it do away with the overcrowding that was one of the necessary conditions of the existence of people in large towns? These could not be remedied by the local authorities or the officers of health, unless there was placed in their hands a kind of despotism backed up with unlimited means of control. For thirty years the public health officers had been working towards improving the sanitary condition of the country and the chief towns, particularly the metropolis, and yet they could not touch the death-rate. If anything, it had increased. Speaking for himself and his brother officers of health, he could say that they had worked for the sanitary improvement of the metropolis with an earnestness that was hardly to be found in any other part of the kingdom; and yet, how had that affected the death-rate? Between 1840 and 1850 it was 25·29 per 1,000; in the second decade it was 24·94; and in the third, 25·11. There could be no remedy until medical officers of health had given to them unlimited powers to enable them to place the poor in exactly the same sanitary conditions as the rich. Even if a low death-rate, say of 17 per 1,000, and a high birth-rate of 37 per 1,000, could be obtained, what would be the result? In about thirty-five years the population would be doubled, and in the course of a thousand years every individual would be fifty-six millions; and it would take some eight hundred Englands to hold the population. This showed the absurdity of such a proposition: the laws of nature were against it. If by the exercise of care and skill the medical officers of health were enabled to save life, they generally saved the life of the ailing, who grew up to produce a still more ailing race; and nature at last came to the rescue and put an end to that increase, which was the ideal of the Registrar-General. Although it was his (Dr. Letheby's) desire to see the exercise of his particular functions, and those of his brother officers of health, carried out to the fullest extent, he did not hope that they would ever be enabled to reduce the death-rate, although they might contribute largely to the comforts and enjoyments of life.

Mr. James Lewis objected to Dr. Letheby's inference that because the death-rate of the whole country was comparatively stationary it could afford no test of sanitary condition, and that all the sanitary labours of thirty years had had no effect upon the death-rate. Dr. Lyon Playfair, in a recent address, had completely disposed of such an inference as that. Dr. Playfair argued that, taking into account the rapid development of conditions inimical to healthy life consequent upon the modern aggregation of dense populations, the fact that the death-rate had not greatly increased proved that some strong countervailing influence had been at work. That influence was found in the measures of sanitary improvements which had been adopted; and the question might be put to Dr. Letheby, "What would the death-rate in all probability now be had all the unfavourable conditions to which town populations are subject gone on unchecked?" He (Mr. Lewis) held that under the circumstances the fact of a stationary death-rate showed precisely what Dr. Letheby seemed to think it did not do, namely that the work of the health officers, as tested by the death-rate, was a productive and a beneficial work. It had been said that the publications of the Registrar-General were of no use because they did not enable the medical officers to put their finger upon the precise spot where the mischief arose; but that was not the function of the Registrar-General who had only to call attention to the fact that something was wrong, and it was then the duty of the sanitary officers to make investigations. Speaking of the paper which had been read he assured Dr. Letheby that Mr. Humphreys had prepared it entirely on his own responsibility, neither consulting the Registrar-General nor any body else.

Mr. David Chadwick, M.P., said he was very much interested in the paper. He thought the reader of it had been to a large extent answered by the objections which had been made from time to time during the last three years to the Registrar-General's reports. A person like himself, not connected with the medical profession, would, under any circumstances, differ with great reluctance from such an authority as Dr. Letheby. He would not attempt to go over that gentleman's arguments, but would content himself with saying from thirty years' experience of the sanitary condition of the population in towns he had arrived at the same conclusions as the author. He thought Dr. Letheby's estimate absurd; and would state a few reasons why such an extreme opinion ought not to be held, and why Dr. Letheby ought not to shelter himself, being the health officer of an unhealthy district, by finding excuses for other local bodies and their medical officers. It was the duty of every medical officer to look the matter in the face. If proper sanitary regulations were enforced, and good water, good drainage and good houses supplied, the health of the population would be improved. This was the result of his experience as treasurer of an important borough, where he had carefully ascertained the death-rates of the surrounding districts. Twenty years ago he (Mr. Chadwick) published a paper showing the death-rate in most of the large towns, especially in connection with the subject of drainage. He was then following in the wake of Mr. Edwin Chadwick, and he divided the borough with which he was connected (Salford) into districts and blocks. It was then ascertained that while the average death-rate of the borough was, as at present, 28 per 1,000, in some blocks it averaged for upwards of seven years between 40 and 50 per 1,000; in other parts of the same township it was much lower. In Broughton the average was only 16 per 1,000, whereas in a district half a mile distant, the rate was 50 per 1,000. Where the death-rate was highest the drainage was bad and the population crowded. Cellar dwellings and other unsanitary conditions greatly increased the mortality. He had brought the whole question before the Corporation, and called the attention of the officers of health to the subject, and an immense improvement took place in the unhealthy districts. The statistics were published for many years, and would have been published to this day but for the opposition of a class of persons who had influenced Dr. Letheby—the cottage owners. With regard to Mr. Welton's death-rate of London it was exceptional, and need not be discussed. He (Mr. Chadwick) had six domestic servants whose parents lived in the country; in the case of sickness, therefore, they would be taken from his house, and if they died it would be away from the metropolis, so that their deaths would not be recorded. The same remark applied to the west end of London. He was pleased with the moderate manner in which the subject had been treated, and thought that the author had successfully answered Dr. Letheby's statements.

Mr. F. G. P. Neison, jun., said he could not agree with the author that the rate of mortality in towns was a fair test of sanitary condition, for the reason that he grouped together all the different occupations of the population. He could show from figures that the mortality of one occupation was often more than three times that of another. From a paper he had recently seen, dealing with the population of 1871 and the death-rate of 1869 and 1870, and showing also the death-rate of the different occupations, he observed that, taking the working period of a man's life between 25 and 40, the rate of mortality among gardeners was only from 8 to 8½ per 1,000, while that of innkeepers and hotel-keepers was as high as 27 per 1,000. A paper which was read before the British Association at Norwich, in 1868, drew attention to one or two facts. Taking the number of any occupation living at 20 years of age—say, 10,000 now living at 20—it showed how many of those persons would be living fifty years hence at the age of 70. Taking agricultural labourers (the most healthy class in the country), it was found that fifty years later there would still be of the 10,000 5,300 left, while there would only be 2,000 brewers and maltsters alive of the same number. With these facts he had come to the conclusion that the death-rate was greatly affected by the occupations of the population. He had made observations in Newcastle and Liverpool with the view of ascertaining the mortality of the class of persons following the occupation of labourers, and he was struck with the high death-rate. Analysing the data he found that it was solely to be attributed to the immense number of dock labourers employed in those towns, whose occupation had been found to be very unhealthy. The tables which accompanied the paper tended to show that the towns were very much healthier than the rural districts. It had also been argued that the mortality of a city was in excess of that of the country. From observation he had found that there was hardly any difference in the mortality of persons between the ages of 25 and 65 in the towns and cities and that prevailing in the rural districts, in the same occupation. He thought that the main difference in the annual death-rate in the large towns would be accounted for if the occupations prevalent in each town were looked into.

Dr. Tripe, while agreeing with the statistical part of the paper, said that the author had not defined what he meant by a sanitary condition. There was no use in making an investigation unless the premises were distinctly laid down. As far as he could see, the basis of the paper was that everything above a certain death-rate was due to the want of a sanitary condition. That he denied. He looked at the sanitary condition of a place in the same light as a medical officer of health would look at it, namely, the condition which the local authority, or the medical officer of health acting under that authority, could alter. If the condition was one which could not be altered, and one over which there was no control, he scarcely thought it was reasonable to say that that was the sanitary condition of a place which showed that it was unhealthy. He thought that occupation had a great effect upon the death-rate. He had published a paper a short time since on the subject. He observed that, while the death-rate of Hampstead was 15·2, in St. George's-in-the-East it was 28·2. He knew that the sanitary condition of St. George's-in-the-East was not very much worse than that of Hampstead, but if the question was gone into, and the difference in the wealth of the inhabitants of the two parishes was considered, totally opposite conclusions to those stated in the paper would be arrived at. In reference to the mortality among domestic servants, he had found that in those districts in London where there was the largest number of servants the mortality was 19·5, whereas in the districts which had the fewest servants or were the least crowded, the mortality was 23·4; so that it could scarcely be said that the sanitary condition of a place was to be judged of by the rate of mortality, arising to a large extent from density of population. It was well known that the larger the number of people in a house, the greater the death-rate and the greater the sickness; but sometimes there were sanitary conditions over which the medical officers of health had no control. That being so, he thought it unfair that such men as the medical officers of such places as Whitechapel or St. George's-in-the-East should be branded with incapacity because the death-rate was not less.

The Chairman here reminded the speaker that the discussion should be restricted as much as possible to the questions raised by the paper of Mr. Humphreys, to the avoidance of personal questions.

Dr. Tripe, continuing, said that unless the author of the paper defined what he meant by the sanitary condition of a place, the members were not in a fair condition to discuss the matter. With the exception of the question of the migration of the population he thought the matters in dispute were scarcely worth consideration.

Mr. T. A. Welton said that with one or two exceptions he agreed with the paper. As regards the manner in which the results he had arrived at in respect to the effect of migrations, the author of the paper had not sufficiently understood him. He not only showed that in London at certain ages the rates were reduced below the standard of the country, but he also showed the converse of that, that in the rural districts, where the people came from who populated London, there was sometimes a monstrous exaggeration of death-rate. He was glad that a discussion had arisen with respect to these matters which would encourage an easy test to be applied. What could be easier than to take a few rural districts and investigate the history of its lives, more especially of females dying between 15 and 35. This should be done over a succession of years, and then it would be ascertained whether these were not to a great extent lives which had returned damaged from London.

Dr. FARR felt bound to add his testimony to that of other Fellows who had expressed their appreciation of Mr. Noel Humphreys's paper. It was an elaborate and conclusive investigation of the circumstances which, independently of sanitary condition, raise or lower the death-rate of a population; and, by taking extreme cases where the sexes and ages differ most in proportion, he shows that through a system of compensations, the variations from these causes are confined within narrow limits. No instance is known where the mortality is high and the health of the people is good. If the mortality is high and zymotic diseases prevail, the water is bad, the sewerage is imperfect, impurities abound, the people are crowded, the occupations are carried on in dusty workshops, intemperance prevails, or other conditions fatal to life are found. Remove any of these noxious elements, and so far you lighten the death-rate, as has been done decisively in Salisbury, Sheerness, and many other places. London itself is a striking example of the effect of sanitary improvements. Up to the seventeenth century a fourth or a fifth part of the inhabitants was swept away once or twice in every generation by black-death, sweating sickness, dysentery, small-pox, and plague; and this destruction was the direct result of the flagrant sanitary defects described by the writers of the age, and well known to exist. The recent drainage of London, imperfect as it is, and the water-supply improved but still defective, have reduced the mortality, especially in South London. It is true that the inexorable death-rate—that measure of all our short-comings as well as of all our triumphs—shows that in all England the mortality is still as high as it was thirty years ago: but when you reflect that the proportion of town population during all these years has increased at a pace with which sanitary measures have by no means kept pace, you can scarcely be surprised at this result. In the country nature dilutes, or removes impurities as fast as they are produced; in the dense populations art alone can give the people the elements of healthy life. How few of our most enlightened cities can produce clean bills? Health officers have only recently been appointed; the medical mind has only lately begun to cultivate public health. Opposition is every where encountered, and can only be overcome by time. But let us not despair. I cannot but hope that Dr. Letheby, on reflection, will modify some of the views he has expressed this evening, as I conceive they may have—not here but elsewhere—a fatal and discouraging effect. He asserts that a high death-rate so far from implying existing evil to be removed may be a sign of prosperity; that health officers have not, and cannot, reduce the death-rate; and that if they could deprive the destroyer of any of his victims, if they could save the life of childhood, manhood, or age—if they could bring down the rate of mortality to the Registrar-General's ideal standard of 17 in 1,000, it would expose England to the worst evils of over-population. You have heard and smiled at his calculation of the state of these islands at the end of a thousand years. These doctrines are not quite new; but there is a novelty in their promulgation by the President of the Health Officers of London. If Dr. Letheby's doctrine is sound it is evident that our new institution of health officers—of which we are proud—is a threatening evil to be suppressed; in fact, the whole medical profession, exerting itself with admirable skill to save our lives, is only doing good that evil may come. I have had, in the census reports and in my reports to the Registrar-General, to study this question of population closely, not only in these islands but in our colonies, and I have come to a totally different conclusion from that of the President of the Health Officers of London. I see that these islands are still under-peopled; millions more can live here by old or new industries, and millions of square miles of territory in the colonies are crying out for men of the English breed to inhabit and cultivate them.

Mr. HUMPHREYS, in reply, said he was very much obliged for the attention which had been paid to the paper, and hoped some of the figures in it might be useful. Perhaps the strongest objection taken to the paper had been that which stated that he viewed the death-rate as a test of sanitary condition, without stating what it meant. With regard to that point, he had tried to prove in figures that wherever there was a high death-rate there were sanitary shortcomings, and he had endeavoured to support that by the production of figures which showed that wherever there was a high death-rate there was a prevalence of zymotic diseases, and an increased mortality among infants and old people. He did not mean to say that sanitary condition was at present entirely within the control of a health officer, but the meaning he attached to sanitary condition included all those circumstances which tend to produce so much higher a death-rate among the lower than the higher classes. He thought very few would deny that overcrowding in cities tended to increase the death-rate, and that a proper attention to sanitary laws would effectually lower it. He recommended the erection of improved dwellings for the working classes in larger numbers, as in nearly every case such undertakings had been a commercial success, or, at any rate, had been self-supporting. This would materially assist in placing the working classes in an improved sanitary condition, in the broadest sense of that term. He regretted that any personal remarks should have been called forth by his paper, but he thought that, on looking at the process by which he arrived at his conclusions, it would be found that high death-rates could be explained by the prevalence of zymotic diseases, the high rate of infant and senile mortality, &c., which, beyond dispute, were the result of incomplete or unfavourable sanitary conditions, which were all, more or less, within control.

The PRESIDENT, in moving a vote of thanks to Mr. Humphreys, said that the paper had an important practical bearing, had been treated in a scientific spirit, and would have a permanent value. It had not been noticed in the paper, or in the discussion upon it, that just thirty years ago Mr. Neison, sen., had written a valuable paper on the same subject, which was to be found in the seventh volume, p. 44, of the Society's *Journal*. This paper treated primarily of the age at death (a test much insisted on by Mr. Chadwick), but incidentally also on the death-rate, of which he had tested the true value. The subject of Mr. Humphreys's paper was one in which he (Dr. Guy) took a very considerable interest, and, had time permitted, he would have offered some observations upon it, especially in reference to the large number of causes which concurred to bring about our death-rates. Mr. Neison, jun., had just called attention to the influence of employments, both the in-door and sedentary, and the out-door of the rougher order; and he (Dr. Guy) would remind the meeting of the fact that Professor Jevons, a very able and accomplished Fellow of the Society, had pointed out, in an address of his delivered two years ago, that in certain important centres of population, where the Irish element prevailed, there was a high mortality, and that the excessive death-rate bore a very curious relation to the proportion of the Irish element existing in the several populations. The subject, so ably handled by Mr. Humphreys, even after the discussion that had followed it, was by no means exhausted.

The MATHEMATICAL THEORY *of* POLITICAL ECONOMY.

THE following paper was read by Professor W. Stanley Jevons, M.A., at the opening night of the present session of the Manchester Statistical Society. A similar topic was brought under the notice of Section F of the British Association by the same writer in 1862, as a "Notice of a General Mathematical Theory of Political Economy." The subject of the present paper was "The Progress of the Mathe-" matical Theory of Political Economy, with an Explanation of the " Principles of the Theory."

Professor Jevons said: The very recent publication of an important work on "Political Economy," by M. Leon Walras, the ingenious professor of the science in the Academy of Lausanne, induces me to draw the attention of the society to the mathematical theory of economy. The work of M. Walras is entitled "Eléments d'Éco-" nomie Politique Pure," and although constituting only the first part of a complete treatise, it is divided into three books, which discuss respectively the "Objets et Divisions de l'Economie Politique et " Sociale," the "Théorie Mathematique de l'Échange," and lastly the subject "Du Numéraire et de la Monnaie." The first of these divisions is a general discourse upon the subject and method of the science; the second contains a highly remarkable mathematical analysis of the laws of supply and demand and the conditions of value; the third applies the result of this analysis to the special case of the currency.

It is to the second of these essays, that I wish particularly to direct your attention. Commencing with a sketch of the operations which take place and the motives which govern those operations upon any extensive market, like that of the French Rentes at the Paris Bourse, M. Walras proceeds to attach definite ideas to the familiar terms value, price, effective offer, effective demand, satisfaction of wants, &c. Regarding all these notions as strictly mathematical, as they certainly must be, because they deal with definite quantities, he proceeds to invent a notation, accurate and ingenious, but perhaps a little complicated, for expressing their relations in the briefest and most general manner. He shows also that the variation of the quantities can be very clearly expressed graphically by curves representing the supply and demand of any commodity at different prices. The causes of these variations are next investigated, and discovered to depend upon the extension and intension of utility of the commodities, which notations, again, are represented by curves of the variation of utility. The intensive utility of an article is stated to be identical with its rarity, arising from the limited character of the supply. Finally, M. Walras arrives at this fundamental theorem, that the current prices of commodities, or the prices *in equilibrio*, are equal to the ratios of the rarities, or, as otherwise expressed, the values in exchange are proportional to the rarities. It is a remarkable circumstance concerning this theorem that, although expressed in different language and reached by a different course of reasoning, it is yet precisely identical with the chief result of the mathematical theory of political economy of which the first brief outline was made known at the Cambridge meeting of the British Association for the Advancement of Science in 1862, and of which a fuller exposition, under the name "The "Theory of Political Economy," was published in 1871. I cannot help reiterating here my feeling that in England the progress of true economical science is being immensely retarded by the excessive popular reputation attaching to the writings of the late Mr. Mill. So peculiar was the power excited over his friends and readers by Mr. Mill's zeal, his fearless independence of opinion, his high moral character, and his lucid, persuasive, and apparently logical style of composition, that his works have acted upon English readers like a spell, which it may take many years to break. Already, however, his exposition of the wage-fund theory has been overthrown by Professor Cliffe Leslie, and his fundamental propositions concerning capital have been shown to involve various fallacies and self-contradictions by Mr. George Darwin, and quite recently by Governor Musgrave, of South Australia. After studying the writings of Mr. Mill for twenty years, and teaching from them for more than ten years, as I am unfortunately obliged to do by the public recognition which they receive at the Universities, I feel bound to express my confident belief that they will in the course of time be allowed to consist to a large extent of a series of ingenious sophisms.

In our own subject of political economy, it has been much too commonly assumed that Adam Smith founded the science, that Ricardo systematised it, and that Mill finally expounded it in a nearly perfect form. An orthodox economical creed has thus been established, and all who can call its truth in question are too likely to be treated as noxious heretics, or, at the least, as harmless crotcheteers. But in spite of all danger of being thus regarded, I maintain that it is only by going back and reconsidering the primary notions of the science that we can arrive at a true theory of economy, and be enabled to distinguish between the true and the false in ancient doctrines. It is probably a mistake to put forward the new views of the science as forming specially a mathematical theory. In truth, there is nothing more theoretical, and but little more mathematical, in the views of M. Walras, M. d'Aulnis, and myself than in the ordinary doctrines. The laws of political economy must be mathematical for the most part, because they deal with quantities and the relations of quantities. If we turn to the explanations given of the principal elements of the subject in any of the chief authors, we shall find that they deal continually with quantities. Adam Smith says, "The value of any commodity "to the person who possesses it, and who means not to use or consume it himself, but to exchange it for other commodities, is equal "to the quantity of labour which it enables him to purchase or "command. Labour, therefore, is the real measure of the exchangeable value of all commodities." Again, he says, "Equal quantities of labour, at all times and places, may be said to be of equal "value to the labourer." Ricardo does not entirely agree with Smith's opinion on the origin of value, but his own ideas are not the less mathematical. "Possessing utility," he says, "commodities derive their exchangeable value from two sources—from "their scarcity and from the quantity of labour required to detain "them." And he proceeds to consider how the question of value is affected by the varying price given for different quantities of labour. There is hardly a page of his well-known treatise in which Ricardo does not reason about the equality or inequality, the proportionality, or the manner of variation of quantities of commodity, labour, value, utility, money and so forth. If we examine the treatises of Senior, of M'Culloch, of Say, of Mill, or of any other economist, in fact, we shall find that quantity is almost the sole theme, but that the manner of treating quantitative relations is of the crudest character, and that little or no aid is derived from the recognised modes of mathematical expression, which are found essential in all the other sciences dealing with quantity. Thus the chief difference between the old and the new doctrines is, that the old ones involve a crude and partially false mathematical theory, and the new ones, as I venture to maintain, a true mathematical theory. This difference arises, as I believe, from overlooking the importance of a thorough analysis of the notion of utility.

Economists, with few exceptions, have described utility as if it were a fixed and invariable quality of a substance, like its colours, density, hardness, or conductivity. They have probably confused utility with those fixed physical properties on which its utility is founded. Mr. Mill, for instance, on reaching the critical point of his theory of value, introduces a long quotation from that strange writer De Quincy, who, in his "Logic of Political Economy," illustrates the relations of price, utility, and difficulty of attainment. Here, again, we have crude mathematical reasoning. We are told "the "inertness of D (that is, difficulty of attainment) allowed U (that "is, utility) to put forth its total effect. The practical compression "of D being withdrawn, U springs up like water in a pump, when "released from the compression of air;" and so forth. In parts of this curious passage De Quincy speaks of symbol U as denoting intrinsic utility, implying that the utility treated by economists is intrinsic or deeply seated within the objects and commodities which are the subject of the science. In this use of the term he is in perfect accordance with the generality of economists. Adam Smith says, "Nothing is more useful than water," meaning, in the absence of qualification, that all water has qualities which render it exceedingly useful. In the works of Smith and most English writers it is indeed difficult to find any precise definitions of utility.

Turning to French economists we find clear, though it may be mistaken, definitions. According to Say, utility is "Cette facultè "qu'ont certaines choses de pouvoir satisfaire aux divers besoins des "hommes." Garnier still more clearly sums up the opinions of most economists when he says: "L'ensemble des qualités qui rendent les "choses propres à satisfaire nos besoins et à procurer des jouissances, "se nomme utilité." According to all such writers, then, utility is the *ensemble* of physical qualities which are capable of making the substance possessing them suitable to the wants of men. Among English writers there is one who, without perhaps being aware of the whole importance of the change, has given a different definition of utility. Nassau Senior, in the admirable introduction to his treatise on political economy, describes utility somewhat vaguely as "the power, direct or indirect, of producing pleasure;" but then he goes on to make the following most important remark: "Utility, "however, denotes no intrinsic quality in the things which we call "useful; it merely expresses their relations to the pains and pleasures "of mankind. And, as the susceptibility of pain and pleasure from "particular objects is created and modified by causes innumerable "and constantly varying, we find an endless diversity in the relative "utility of different objects to different persons, a diversity which "is the motive of all exchanges." It is from the notions expressed in these two sentences, when fully interpreted and followed out, that a true theory of economy is unfolded. To illustrate the importance of the change, let us go back to De Quincy and his "intrinsic "utility." He imagines a little romance in his agreeable style, and represents the reader as travelling upon Lake Superior in a steamboat, making his way to an unsettled region 800 miles ahead of civilisation. "One fellow-passenger, whom you will part with before "sunset, has a powerful musical snuff-box. Knowing by experience "the power of such a toy over your own feelings, the magic with "which at times it lulls your agitations of mind, you are vehemently

" desirous to purchase it. In the hour of leaving London you had " forgotten to do so : here is a final chance. But the owner, aware of " your situation not less than yourself, is determined to operate by " a strain pushed to the very uttermost upon U, upon the intrinsic " worth of the article in your individual estimate for your individual " purposes." Here we find, clearly, that the musical box possesses intrinsic utility and intrinsic worth ; but if these words mean anything, each musical box of exactly the same physical construction must have exactly the same intrinsic utility, however many boxes of the same sort you may previously possess. Even then, if you had brought a box with you from London, you would be equally anxious to buy a second exactly similar one from your fellow-passenger—nay, twenty such if they had come in your way. Now, what possible use can attach to twenty exactly similar musical boxes in the wilds of the Rocky Mountains ? You cannot set them all going at once, for the discord would be terrible. If you try to use them all, by starting first one and then the other, the monotonous and constant repetition of the same tunes would be equally intolerable. If you only have them going occasionally, then a single one will serve for many years ; and if you keep a second and a third to meet the case of the first being worn out or broken, the remaining seventeen will be simply useless. It is true that if you have neighbours, these surplus boxes may be sold or given to them ; but it is as regards your neighbours that they now acquire utility, and the very ground of the change of ownership is that what is useless to you will be useful to them. In short, then, utility, as Senior said, is not an intrinsic quality at all ; it is accident of a thing arising out of its relation to the wants of an individual. Utility only exists when there is on the one side the person wanting, and on the other the thing wanted ; and the utility consists in the *ensemble* of all the qualities and circumstances which actually do enable it to quench the thirst or relieve the hunger or satisfy any of the wants of some person. Just as the gravitating force of a material body depends not alone upon the mass of that body, but upon the masses and relative positions and distances of the surrounding material bodies, so utility is an attraction between a wanting being and what is wanted.

Now this view, properly followed out, leads to startling conclusions. We cannot stop at musical boxes, but we must allow that even food and water are continually varying in utility according as there are people who want them or do not want them. Imagine a man in total solitude upon an island in the Pacific Ocean, where there are twenty bread-fruit trees. If the fruit of one tree is amply sufficient to sustain him, then we must allow that the fruit of the other nineteen trees has no utility. In the ordinary circumstances of an industrial community the same principles hold true; but the question is complicated by the practice of exchange, which renders useful to one man what is useless to another. We must now take a further step, and allow that each different portion of the one same commodity may possess a different degree of utility. If a man, imprisoned or otherwise cut off from all other supplies of food, receive only one pound of bread per day, he could barely maintain life upon it; a second pound per day would therefore possess extreme utility for him in satisfying his hunger and maintaining his strength. Supposing, however, that a third pound of bread be offered to him daily, will it possess equal utility with the second? Clearly not; for though he may eat some of it still further to supply his need of nourishment, yet he can hardly eat three pounds of bread per day. As to a fourth pound per day it would be absolutely useless, and would not be touched. We find, then, that the very same uniform commodity varies in utility according to the quantity which is already in possession. Exactly the same considerations apply to all other commodities in a more or less marked manner. One pair of boots is requisite; a second is very useful to replace the first when worn out, or temporarily unavailable; a third, and a fourth, and a fifth might be conceivably useful, though this would depend much upon the variety of construction adapted to serve a variety of purposes. No one can find equal use for 20 or 100 pairs of boots, as would be the case if the utility were intrinsic. We come, then, to the conclusion that the utility of a commodity is no intrinsic or unchangeable quality, but rather a relation which is essentially variable in degree and dependent upon the intensity of the want felt, which again depends upon the quantity of commodity which has been already consumed. Theoretically at least this variation must be regarded as taking place in the very smallest portions of the commodity. Not only is each pound of bread less useful than the pound already consumed, but each ounce than the previous ounce. The decline in the degree of utility may be regarded as approximately continuous, and is properly represented by a curve which more or less rapidly declined towards zero. While the height of this curve at any point above the base line represents the intensity or degree of utility of the commodity, when a certain quantity has already been consumed the area of the curve up to that point measures the total quantity of utility in the form of useful effect derived from its consumption.

We must observe that useful effect is a quantity of two dimensions—namely, the quantity of commodity consumed, and the degree of utility of each part of the commodity; in this sense their utility is correctly represented by an area. Degree of utility, on the contrary, is a quantity of one dimension, and is to be represented by a line. It is by thus giving precision to our ideas of utility that we can alone arrive at a correct comprehension of the relation between utility and value, upon which depends the solution of all the problems of political economy.

If these views concerning utility be accepted, the main branches of the science of political economy resolve themselves into the theory of the equilibrium of utility. The theory will apply, for instance, to the determination of the proper distribution of the same commodity when it is applicable to several different purposes. The commodity ought to be so divided and comsumed that the final degree of its utility in each employment is the same. Each want should be satisfied up to the same point of satisfaction, because if one want is ever so little more pressing than another, there will be an increase of useful effect in applying a little more commodity to that, and a little less to some want which is not so acutely felt. The same principle holds true of the consumption of a store of commodity at different times. We ought so to consume the commodity that in each day or other interval of time the wants of the individual are satisfied up to the same point. It is, then, a general principle that in the case of each individual the degrees of utility are to be equalised, and this is also the key to the theory of value. If a person has a great deal of one commodity and little or none of another—say a great deal of bread and very little tea—the degree of utility of part of the bread will be low, and he will readily part with some, whereas more tea will have to him a high degree of utility, and he will be very desirous of obtaining more. If, then, he happen to meet with a second person who has plenty of tea and little bread, there will be evident increase of useful effect in the exchange. So far there is no mystery. But how are we to determine how much bread shall be given for so much tea, or *vice versâ*. The principle of equilibrium again applies, and each will give of his superfluous commodity until, if he gave either more or less at the existing ratio of exchange, the useful effect would be diminished. The matter is complicated, however, by the fact that the price of one commodity in terms of the other may be higher or lower. Thus if 2 oz. of tea be given for 39 oz. of bread, then in order that utility shall be maximised the utility of 2 more ounces of tea must be exactly equal to the utility of 39 oz. of bread; and this must hold true of each person separately. Now, the total utility or useful effect of 2 oz. of tea is found by multiplying the degree of utility of each ounce (assumed, for the moment, to be of equal degree of utility) by two, the number of ounces; the useful effect of the bread, in like manner, is found by multiplying the degree of utility of the bread by 39, the number of ounces. When equilibrium is attained, the products will be equal; from which it follows as an evident inference that the quantities exchanged will be inversely proportional to the final degrees of utility of the commodities.

It is also to be observed that in an open market there cannot be at the same time two ratios of exchange for the same uniform commodity. Hence the whole quantities of commodity exchanged, will bear the same ratio as the last small quantities. Now, the value of a thing, as we use the term, is greater as we give less of that thing for a given object, and less as we give more. Thus the values of things are inversely as the quantities of them given, and therefore directly proportional to the final degrees of utility.

Now, as the final degree of utility is only another expression for what M. Walras calls the rarity of a commodity, we have arrived at the theorem that the values in exchange are proportional to the rarities. It is evidently impossible that I should in a brief paper give all the requisite explanations concerning a general theory of this kind; it is still more out of the question that I should develop the consequences to be drawn from the theory. The deductions are only in a very partial way exhibited in the work of M. Walras, or in my "Theory of Political Economy." I should mention, however, that the laws of supply and demand, as generally accepted by economists, are easily deduced from the theory of exchange, so that the theory is verified by experience and statistical science. One all important point, however, is the relation between value and labour spent in production. Adam Smith vacillated between utility and labour as the causes and measures of value, and what perplexed Smith has perplexed subsequent writers. Thus we find Ricardo laying down that commodities derive their exchangeable value from the quantity of labour required to produce them, except in the case of commodities of which the supply cannot be increased by labour, and in these cases scarcity is the cause of value. The result of our theory, however, is to show that value always depends upon degree of utility, and labour has no connection with the matter, except through utility. If we can readily manufacture a great quantity of some article our want of that article will be almost completely satisfied; so that the degree of utility, and consequently its value, will fall. Production operates upon value only by varying the intensity of our desires for more of the same commodities; and it is plain that, in deciding how much of each kind of goods is to be produced, the principle of equilibrium of utilities must again guide us, so that each want shall be satisfied up to the corresponding point. Regard, must now be paid, however, both to the ratios at which commodities exchange, and to the comparative quantities of different commodities which can be produced by the same labour.

The same kind of investigation which has been applied to the analysis of utility can also be applied to labour regarded as varying both in duration and intensity of painfulness. The general result, as explained in the "Theory of Political Economy," is to confirm the prevailing doctrine that the values of commodities tend to become approximately equal to their cost of production. The most important critic who has raised objections to this theory is certainly Professor J. E. Cairnes, who, as I have said, altogether repudiates it in the very first chapter of his new work. He commences by remarking that I follow M. Say in maintaining that value depends entirely upon utility, and that he had regarded Say's views as long ago disposed of by Ricardo. So far, Professor Cairnes may be in a manner quite correct. M. Walras, M. d'Aulnis, and I do follow Say and several other eminent writers in regarding value as totally dependent on utility; but it is the exact nature of this dependence which is the all-important point, this which Mr. Cairnes has wholly misapprehended, or rather not apprehended at all. Altogether missing the distinction between total utility or aggregate useful effect, and the remaining degree of utility, which attaches to fresh supplies of the commodity, he remarks:—"A use of language according to which "water is only useful where it is paid for, and in proportion as it is "paid for; according to which atmospheric air is only useful in "diving-bells, mines, and other places, whither it is costly to convey "it; according to which meat and corn are less useful commodities "in the United States than in England, and clothing and cutlery "less useful in England than in the United States; according to "which diamonds are more useful than coal, and iron is the least "useful of the metals—such a use of language, it will be admitted, "requires strong reasons for its justification." No doubt; but anything more wide of my use of the term useful cannot be conceived. Water, in a certain quantity, is infinitely useful to every person; but when enough has been received, further supplies are not useful, and may be hurtful, as in the case of a flood, a damp house, or a wet mine. A person living by a stream of pure water pays nothing for water, because he experiences the total useful effect of water without paying. For like reasons we seldom pay for air, because, though infinitely useful at every moment of our lives, the portions of air requisite to produce the useful effect of respiration can be drawn straight from the atmosphere without cost, and further supplies would not be useful. In diving-bells, mines, and elsewhere, we pay to get air, because otherwise we should not have enough, and additional quantities are worth paying for. The same explanation applies to all Mr. Cairne's other objections. Coal is vastly more useful than diamonds in its total usefulness; but as we have for the present plenty of coal and not plenty of diamonds, we may still want one small diamond more than we want an additional ton of coals. With his own interpretation of my use of the term utility, it is no wonder that Mr. Cairnes holds my theory of value to be groundless. It amounts to this, he thinks, "That value depends on utility, and that "utility is whatever affects value." In other words, the name utility is given to the aggregate of unknown conditions which determine the phenomenon, and then the phenomenon is stated to depend upon what this name stands for. I am wholly unable to see how Mr. Cairnes reaches this view of the matter. Value does depend upon the degrees of utility of the commodities valued, and these degrees of utility depend upon the quantities of commodities available as compared with the wants of consumers. But, in reality, so long as Mr. Cairnes fails to distinguish between the total useful effect of a commodity and its remaining degree of utility, and so long as he interprets my employment of the term utility in a way which is totally opposed to my own use of it, there is no possible common ground of discussion between us.

I will only further add a few words as to the value of the theory itself. It might seem that it leads us to no new conclusions, because we found that the principal inferences from the theory were the laws of supply and demand, and the doctrine of the relation of value to cost of production already so well known in political economy. But though many parts of economical doctrine as now accepted will be confirmed by the theory, other parts will probably be shown to be groundless. The results of any such theory must be of a triple character, destructive, conservative, and constructive; but it is yet too soon to attempt to trace out the actual character and extent of its effects in each direction. It might be thought, perhaps, that, being a mathematical theory, it cannot be of use until reduced to exact numbers and mathematical formula. Though numerical precision would be very valuable if it could be secured, yet it is no more requisite to this theory than to the old doctrines of economy, which are mathematical so far as they are anything at all. A true mathematical theory without numerical results can correct, or if necessary overturn, a false mathematical theory without numerical results. The laws of supply and demand are the best established part of the prevailing doctrines, although they have never been defined or analysed with any numerical precision; but, so far as they are known to be true, they form the verification in experience which ought to be applied to every theory. There is nothing, then, more theoretical, more speculative, more mathematical, more removed from experience or common sense in the new than in the old views. The new views simply arise from a more close and thorough analysis of the conditions of utility and its relations to value and labour. Ricardo said, "From no source do so many errors and so much difference of "opinion in that science proceed as from the vague ideas which are "attached to the word 'value.'" It will be a result of quite sufficient importance for the present if the new theory enables us to test the truth of prevailing doctrines concerning value, and to reject those which are false. It is quite doubtful whether the new theory will always lead us to such precise and dogmatic conclusions as we find in some of the principal treatises on political economy; but it will be allowed that precise and dogmatic conclusions do more harm than good if they be false, and that there is nothing of more worth in scientific matters than the touchstone which can decide between truth and error.

Opening Address *of the* President *of the* Department IV, "Economy *and* Trade," *of the* National Association *for the* Promotion *of* Social Science, *at the* Eighteenth Annual Congress, *held at* Glasgow, *October*, 1874. *By* Sir George Campbell, D.C.L., K.C.S.I.

I have been so much and so actively engaged abroad, that I fear I am but ill qualified to speak of this great subject. I must confine myself to some general observations which occur to one, who from a distance has had what may be called a sort of bird's-eye view of events passing in Europe; and I think that you will view leniently my shortcomings and errors.

It seems to me that the pervading element in recent changes of opinion on economical questions, is a certain distrust of the orthodox doctrines of political economy, such as were at one time received—a recognition of considerable disturbances and wide deviations due to what I may call moral causes. It has come to be understood that in practice men do not always, or even generally, follow the strict paths of pecuniary self-interest, and that in dealing with human affairs we must make large allowances for certain attractions not originally taken into account in the science of political economy. In fact, pure political economy has been to a great extent supplemented by what may be called mixed political economy.

I would class the disturbing causes under the heads of, first, habit and custom; second, ignorance and prejudice; and third, the fact long preached, but little accepted in modern days, that wealth and happiness are not always commensurate; since it may be that a smaller total of wealth distributed in one way, or under certain conditions may afford more happiness, and consequently be more sought after, than a greater total of wealth distributed or accumulated in another way. I think we can have no true economical science without recognising that the result depends quite as much on the distribution of wealth, as on its actual amount. The fact seems to be that in primitive times, before wealth was so great and before economy had been reduced to a science, the wisdom of our ancestors recognised and acted on many of the considerations which, in later days, we have overlooked; and along with much gross error and prejudice they had some elements of social well-being and happiness, which have been comparatively wanting in modern times. Hence arises a sort of radical reaction—a disposition on the part of some of the most advanced reformers in some things to revert to earlier phases of society, when wealth in the hands of individuals was less exclusively king; when castes and classes were less widely separated; and when institutions prevailed, which admitted greater numbers to the privileges and enjoyment of property or of common rights.

Taking in the order in which I have stated them the classes of causes most likely to disturb the rules of pure political economy, I will not here say much on habit and custom, though in truth custom is of enormous importance and greatly influences most affairs. It is abundantly evident that these things do very largely affect human action, even in the most civilised countries; and no man can be a true statesman, who makes his calculations without allowing for their effect. So long as human nature is human nature, men and still more women, will be influenced by habit and custom.

Mere ignorance is perhaps scarcely so important, inasmuch as while the influence of habit is perpetual, ignorance is an ice-bound form which melts and disappears under the influence of the sun of knowledge, which in these days is melting with great rapidity, and which modern advances seem likely very rapidly to reduce to a minimum.

The grand difficulty in establishing a free and good social state in these days seems to me to consist in this, that up to this time almost all, if not all, the examples of successful free States are States in which real freedom has been confined to a body of freemen—a very large body, even a majority of the populations, it may be, but still an exclusive body, not comprising the whole population. The menial and inferior duties have always been performed by a helot population—either actual slaves, serfs of the soil, or persons nominally free, but really by gross ignorance kept down to a *quasi*-helot position. The old republics of Greece and Rome had large bodies of slaves; so had the American Republic till the other day. In the middle ages, the free nations of Europe seem always to have dominated over subject races of serfs. On the Continent many of the people had not fully emerged from that state till modern days. In England, till quite the other day, the agricultural labourer was a rude and ignorant serf, debarred by ignorance from any effort to improve his condition. Even in educated Scotland we are told, that in comparatively recent times miners were almost or quite slaves; and I believe I am right in saying that in modern times, in this manufacturing West, the lower kinds of labour in the great industrial establishments are for the most part not done by Scotchmen, but by strangers imported to fill the gap left by the *want* of ignorance in Scotland.

Even in Scotland we now know that a good deal of ignorance has remained. But in Scotland, England, and Ireland too, measures are taken which will render the people no longer ignorant, and we must make up our minds for the changes necessarily resulting. Not only education proper, but those great educators, railways and steamships and the press, are rapidly bringing things to that point that ignorance will no longer render easy, bargains for the performance of inferior toil.

When the ignorance which maintains a pariah caste is dissipated, we come to that state of things which already to a great extent exists in America: among equals no one will submit to do the inferior work, except for very high pay. Hence a social revolution, which we are now going through. It may be doubted whether the effect will be to raise the comparative position of the aristocrats of manual labour, the skilled mechanics; but we certainly witness a process which must be lasting, viz., the comparative elevation of the wages and positions of the labourers who perform the more disagreeable and inferior labours.

This seems to me to be one of the causes of recent changes and rise of wages. Another is, no doubt, the increased facilities of emigration, the consequent drain to America, and the tendency to an equalisation of the conditions of the labourer in Europe and America.

How far, then, is the change to go? Is there a limit to it, or are wages to go on rising indefinitely? I think those who are too sanguine in their anticipations of continued improvement in the position of the labourer, must remember several drawbacks. Every great rise in the price of production must tend to check that great development of our manufactures and trade, which has hitherto more than kept pace with the population. Under improved conditions of life we may expect that population will continue to increase very rapidly. And there seems much reason to believe that the flow into America has already gone far to reduce the difference of level which has hitherto produced so strong a labour-current to the West.

But, beyond these considerations, which most of you understand better than I can do, there is another to which I would particularly ask your attention, and in regard to which I can speak with more personal knowledge. These countries of Western Europe are not the only or the chief labour-markets of the world. On the contrary, in Southern and Eastern Asia we have a population infinitely more numerous, and where wages are out of all comparison cheaper. It may be that the same influences which tend to spread populations and equalise wages as between Europe and America, may soon tend to produce the same effects as between Asia and the countries where labour is now dear. Already Chinese labour has come into competition with white labour, and it has become evident that the Chinese are no mean competitors.

In truth the same causes—prejudice and ignorance and want of means of communication—which have hitherto kept in degradation much of the populations of Europe, have also kept cooped up in their own country, at humble labour on low wages, the great Eastern populations. Wherever there is peace these populations increase; and if the bonds which have restrained them are relaxed, they may greatly affect the labour markets of the world.

The Chinese have a physique very little inferior to Europeans, and they have an industry and perseverance superior to many Europeans. They have hitherto been much restrained by political circumstances and social bonds; otherwise they are singularly free from any trammels of ignorance and prejudice. I have often been inclined to think that if the gates of China were fairly opened it would be a question whether the New Worlds are to belong to the Americans or to the Chinese. The success of the Chinese as colonists is mainly retarded by one social prejudice—they do not like to take their women abroad. But, I believe there are symptoms that this may be overcome, and, if so, I do not see what there is to prevent the Chinese from multiplying and replenishing the earth.

Then we come to the vast populations of our great Indian territories. Recent events have created a painful interest in the density and the rapid increase of these populations. More and more this country seems to feel that, having undertaken their government, it is our duty to do what we can to facilitate their employment in a way which may mitigate the evils resulting from overcrowding, uniformity of labour, and lowness of living. There are still large parts of India in which the wages of a labouring man are not more than 2½*d.* per diem, and 3*d.* is an outside wage in all the rural parts. Whether we facilitate a change or not, the world is progressing, and there is some probability that many of these people may come into the labour market of the world. In their case pre-eminently, it is prejudice and ignorance which have kept them back. Caste prejudices are being weakened. We are doing much to educate the people in India. Unheard-of facilities of locomotion are there provided. In several parts of the country the people are becoming accustomed to emigration. There seems no reason why at least our warmer colonies and possessions, should not be fully colonized by an Indian population. And it may be that even in our own country, if our own populations are elevated to occupations requiring energy and force, some of the inferior occupations may be taken by our Indian subjects. For instance, I think that in these days domestic service is not the work of European men. As things stand I would give that over entirely to women;

and, if the women are too much for us, I believe that Indian servants, educated in this country to our habits and our energies, would do that duty excellently.

These Indians, though sprung in the main from the same original stock as ourselves, are now undoubtedly inferior in physique; but their intellect is good, and their manual skill great, and the experience of individuals proves that they are quite capable of thriving and improving in this country.

Emigration, moreover, apart, much attention has lately been drawn to the fact that in their own country, Indian labour in manufactories threatens a very dangerous competition with the manufacturing labour of this country. There is no concealing the fact that, inferior though they be in force and energy, the natives of India are just as well fitted as the people of this country for the kinds of work which are connected with machines. I have specially inquired on this point, and am told by those who have practical experience of the great mills recently established in India, that the natives do the work on which they are employed (that is, the manual labour) just as well as Dundee or Manchester hands. They have a distinct aptitude for this kind of thing; and I have never seen a pleasanter sight or a greater improvement in condition than is exhibited by large numbers of native men, women, and children employed in some of these mills. As yet, both in the jute mills of Calcutta and the cotton mills of Bombay, only the coarser fabrics have been attempted; but considering how recent this industry is, it may well be that great advances may soon be made. In some respects Indian mills labour under a disadvantage: coal is dear or inferior, European superintendence expensive, machinery must be obtained from a distance. Still the tendency must be to diminish these difficulties as mills become more numerous, and Indian minerals are more developed. I have no doubt many here can calculate pretty exactly what proportion to the whole cost of manufacture is represented by the cost of manual labour. It is certain that this labour is very much cheaper in India; and weighing that against the advantages on the other side, some opinion may be formed of the probable success of Indian manufactures. So far it is certain that they have given ground for sanguine expectations, and that consequently large additions are being made to the existing manufactories. A question has been propounded to you: "What are the probable effects of "the spread of manufacturing industry in Europe on the future "commercial properity of the United Kingdom?" And I beg to impress on you that the question must be extended to India, and that you must consider the possible effect of the spread of manufacturing industry in India. You are probably aware that at this moment the jute mills in and about Calcutta are being largely extended, the existing mills having been found remunerative in a very high degree. Some cotton mills are also started there, while at Bombay a great increase is taking place in the large cotton mills already existing, and cotton mills are started at several places in the interior.

This train of thought leads me to another of the special questions which will be propounded to you: "What are the best means "of drawing together the interests of the United Kingdom, India, "and the Colonies?" I think that in discussing this very wide question a great distinction must be drawn between the self-governed colonies on the one hand, and India, with other native-inhabited and crown-governed colonies, on the other. In the latter we must do what we deem best in the interest of the colony or dependency, and that of the empire at large. But in the case of self-governed colonies it seems now to be accepted that freedom must prevail over the economical views which we may consider right; that they must do as they like, and that we must trust to the taste for British beer, British manufactures, and British mercantile connections, which British colonists carry with them, for any direct benefit to repay the money expended on these children of the mother country. My own view, subject to what I may hear at this meeting, is that self-government should not be conceded too early; and that there is no reason why a handful of first colonists should dispose of great countries, to the prejudice of those who come after them; and that the natives, if there be natives, must be fairly protected. But when a colony of British blood has become populous and settled, and self-government is conceded to it, I think that any attempt to maintain too close a connection with the mother country only leads to evil and bad feeling. All over the world I believe experience shows that highly centralised free governments do not succeed on a large scale—freedom is only possible on a large scale under a federal system, closer or loose as the constituent parts are near and similar, or the contrary. But be this as it may, I am firmly convinced that the British genius is not centralising, but of an intensely local and decentralising character. I observe that the moment a man born and bred in these isles settles in a colony or a dependency he ceases to put first the feelings of an Englishman or the interests of the empire—he becomes intensely local in all his views and interests—he is always ready to decry the interests of the mother country as opposed to the local interests which he has espoused—he is very touchy and difficult to deal with. For this reason especially, I greatly distrust all plans for imperial assemblies to represent the whole empire, and every scheme of that kind. I believe that it must come, and is coming to this—that when self-government has been once conceded the interference of the British

Parliament must almost cease, and we must be content to maintain as long as conveniently may be a loose political connection through the Crown or head of the State. The head of the State would then act as arbiter, and exercise an influence sufficient, it may be hoped, to settle disputed questions and maintain concord for a generation or two. But colonies are like children; and when an elder child, such as Canada, has grown to maturity on another continent, has its own politics, connections, and complications there, and is practically out of our hand, I would certainly let it go free without more delay, and would relieve this country of the many embarrassments to which the connection may give rise. We may hope for long years of friendly intercourse with free colonies and colonies emancipated into free countries, if we only follow a negative policy, and keep clear of causes of offence. Canada I believe to be, under present arrangements, a burden and a risk to us. The Australian Colonies are differently situated, and a direct connection with them may no doubt be advantageously maintained for the present.

One of the best means of uniting the mother country with the colonies is no doubt the extension of telegraphic communication, and it is to be hoped that this will be gradually perfected. Especially in all directions we must hope to obtain cheaper telegraphic rates than those now charged by monopolist private companies. The rates on the ocean telegraphs are almost prohibitory to private correspondence.

In regard to India, the character of our connection is very different from that of the free colonies. Possibly we may some day fit that country for freedom, but the time has not yet come, nor approaches, when we can carry political freedom there beyond small local municipalities. The best, then, that we can do, whether for the interests of the United Kingdom or of India, to unite the two, is to govern India absolutely with wisdom and justice. Above all things we must give the greatest possible facilities to promote the flow of those things in which each country abounds to the other. Though I am old-fashioned enough to believe that even the rule of free trade has its exceptions, though I have thought that when actual famine of a severe type is on a country, its rulers may fairly retain its own food supplies, I heartily acknowledge that, as a rule, the freest exchange of commodities is incomparably the best system, and that the first duty of a ruler is to promote that exchange by liberal tariffs and liberal laws—by improved harbours, roads, and railways—by easy markets and other mercantile facilities, and by the industrial education and enlightenment of the people.

Now, we know that India is rich in a great, an industrious, an intelligent, and an orderly population, and in a vast extent of rich soil, made fertile by a tropical sun and almost tropical rains; but she wants capital and science, and energetic directors of labour. All these last the United Kingdom can above all other countries supply, and above all other countries the United Kingdom can take and use and improve the great products which the soil and populations of India supply. It must be, then, that two countries, each of which is as it were the converse and complement of the other, must, when brought into so close relation as are India and this country, benefit one another. The interests of both are the same; the measures that will promote the interests of the one will promote the interests of the other. The task of the Government is but to study the common interests, to remove obstructions, to maintain peace and quiet, and to let things find their natural level.

This country is full of capital. Much of that capital must and does find its way to India. Yet it is often said that capital does not go so freely to India as to some other countries. I believe that the way to an influx of British capital into India is more and more opened every day. But to secure the most abundant flow possible I think we want—

A better definition of the rights in land.

Improved judicial institutions.

An improvement in the English commercial law, better calculated to secure honesty on the part of agents and directors.

Improved facilities for the resort of Europeans to the better hill climates of India, facilities for their settling there, and facilities for the education of their children.

An improved social intercourse between Europeans and natives.

I find that perhaps the greatest difficulty we have now to deal with in European industrial enterprise in India is that too great haste to be rich, which leads men to be constantly seeking short cuts by speculation, rather than to settle down and slowly build up fortunes founded on the goodwill and co-operation of the natives, as the old race of settlers did. The greyheaded old planter, wielding an immense personal influence over the natives around him, is now very rare. Our nation has been demoralised by prosperity and speculation; tea industries and other industries have received rude shocks, and been much retarded, because many men have made tea-gardens and set up other enterprises, not to make tea or anything else, but to sell. In most industries we have now a healthier state of things, but still there is too much of a feverish expectation to make a rapid fortune in a few years as soon as a first success is achieved. I think that to secure steady and sure success planters and settlers must make up their minds to spend the best part of their lives in the country, as government servants do, to learn the languages, to conciliate the natives, and to make for themselves a place in the country. Certainly the most successful men in the long run are always those who get on best with the natives.

I have not mentioned public works and improved communications as one of the improvements required in our Indian system, because I feel that we are already sufficiently alive to the need of these things, and are already doing as much as can reasonably be expected. On the other hand, I think there is extreme need of caution lest we should go too far in a right direction, and too much embarrass our finances by unprofitable works. In respect of improved communications we can hardly do too much, and much has been done. The railways already made in India are on the whole a great success; the trunk lines carry a very large traffic; and though very expensively built, pay quite as well as could be expected. The greatest railway of all, the East Indian, is already a paying line, and so is the Eastern Bengal. If we can succeed in making cheap light railways as feeders to the main lines—so cheap that they will pay tolerably well—we shall have an excellent railway system in India. Already some such cheap lines have succeeded; and if in the future we lay them down judiciously, and avoid a too broad gauge on the one hand, and a pedantically narrow gauge on the other, we may well succeed with such works on a large scale. The difficulties in the way of large and substantial metalled roads in the plains of India are enormous—they are most expensive to make, and most expensive to maintain; it is therefore that I so much look to light railways.

In connection with this subject it may be mentioned that there is very widely spread in India enormous quantities of excellent iron ore. The coal is not so good, but it is tolerable, and in some parts there are great quantities of it close to the iron. If iron should become excessively dear in this country, a successful iron manufacture on a large scale will probably spring up in India. I understand that even now projects of this kind are on foot in a part of the country where there seems to be very great promise of success.

Railways cannot go to every village: we must have local roads of some kind, and the Indian Government certainly does not neglect this subject. There is generally a system of local taxation for roads; and of late in Bengal, where the permanent settlement was by many supposed to cause difficulty, a system of local rating for roads has been carried through, and put in practice with unexpected success.

There is, then, no laxity in providing India with sufficient means of communication. In respect also of accommodation for shipping, much has been and is being done. I am sure those of my mercantile friends who are connected with Calcutta will acknowledge that there at least we have lately given them modern appliances and facilities of the best description, and suited to the great steam traffic by the Suez Canal, which is every day developing, and which will more develop, if only care is taken that the ships are properly navigated. In almost every one of the many cases in which fine steamers have been lost on this route of late, the result has been due to no storms or other natural misfortunes, but simply to gross blunders of navigation. Surely these may be avoided.

You are well aware that great efforts are made to increase the productive power of India and secure the country against famine by means of irrigation. I trust and believe that much may still be done in this way. But the misfortune is that on Indian subjects public opinion in this country is apt to rush to extremes. It seemed at one time to be supposed that irrigation of any kind and at any cost must be the panacea for everything. In truth there are two sides to this irrigation question, and questions of extreme difficulty are involved, which can only be worked out with extreme care and patience. I earnestly trust that the new Minister of Public Works in India will be a careful and a patient man, who will go thoroughly into these questions and work them out thoroughly.

By other means also the productive resources of India may no doubt be increased. But here also we must not rush to too hasty conclusions. The natives of India, knowing their soil and climate, cultivate with a considerable skill and success, which we certainly cannot improve by rude and hasty means. To improve Indian agriculture and Indian staples we must give to the subject the utmost care, study, and practical application. I think that we ought to have a far better knowledge of the products and agriculture of India than we now have, and I trust that steps are being taken to obtain this. We are attempting to commence schools of practical botany and agricultural chemistry; we hope to have an industrial survey of the whole country. I hope and believe that the result will be in the end a greater supply of the products most wanted in this country, and increased prosperity to India.

I have mentioned improved facilities for settlement and education in the better hill climates of India as one of the desiderata. I have doubts whether we can ever do justice to India till we have some sort of colonisation there under circumstances in which the race will not deteriorate. We want a class who may become a sort of medium between ourselves and the natives, and bring the two races closer together, instead of letting them drift farther apart, as is now, I think, the case. I have alluded to the decay of the old race of planters and settlers, and the substitution of young men too sanguine of becoming rapidly rich and going off again. Even among the servants of Government a good deal of the same feeling has resulted from change of system and increased facilities of communication with Europe. I want to tempt some Europeans to make India more completely their home, and to bring up children who may combine with European habits of thought and feeling a thorough knowledge of the natives and of native languages. I want a class of Europeans who understand the soil, the agriculture, and the products of the East, and who, with a European education, may be able to improve them. I also especially wish to develop among the better and highly-educated classes of natives a physical robustness and a taste for practical arts, which may enable them to do for their own country what energetic and educated men have done in Europe. I trust that we have made a beginning in this direction, and that good fruit will soon come of a friendly and efficient working together of European and native energy.

I have not yet touched on the third of the causes of variation from the strict rules of pure political economy which I stated, viz., the possibility of greater happiness resulting from an advantageous distribution of wealth as distinguished from its gross amount. It is generally, I think, deemed to be a source of weakness and social evil in this country that there is a tendency more and more to accumulate wealth in few hands, and to divide the population into a few who have very much, and the many who have nothing. I am myself inclined to think that we too much tend to substitute a plutocracy for the aristocratic rule, which has in great degree ceased. Be this as it may, I think there can be no doubt that a great source of weakness in this country, as compared to some other countries, one which may give them the advantage in the long run, is the want of saving accumulation and property among the labouring population of England, and I fear I must say of Scotland also. We now know that, if the large capital of France is not so large as ours, the amount of wealth in France in the hands of petty holders is enormous. In other European countries, also, the people are, I believe, saving in their habits. Even in Ireland we know that the petty cottier tenants save money to buy farms, and give their daughters portions in a way which, I fear, is very rare among British labourers. Why is this? The Scotch, at any rate, are by nature a prudent race. Why do Scotchmen earning good wages in our manufactories not save like Frenchmen or Irishmen, and buy fields and houses and stocks and shares? I imagine that in Scotland we have now become involved in the English system, and that the English system is not favourable to saving. Englishmen and most Scotchmen have been too long divorced from the responsibilities of property and of complete self-dependence. I take it that the more people cease to work for themselves and become labourers for others, the less the necessities and forethought which beget prudence influence them. When a man cultivates a bit of land on his own account, or carries on any trade on his own account, he must look to the vicissitudes of season and the market. He cannot live from hand to mouth from day to day or from week to week. He must have either money by him or credit to enable him to tide over a rainy day, a bad harvest, or a bad market. The necessity of the case forces him to be prudent and forecasting, and a man so situated generally is so.

On the other hand, the man who receives a weekly wage is too apt to spend it and to trust for the next week to the wages of the next. I believe that in other countries also, as the system extends under which the mass of the workmen are labourers without responsibilities, so also prudence diminishes; and I apprehend that by far the greatest question of modern days is, how to reconcile a great manufacturing system with prudence—how to give the workman a sufficient interest in the produce of their labour, a sufficient incentive to exertion, and a sufficient motive to prudence. I do believe that for many reasons 1,000*l.* saved by ten workmen is more valuable to the country than 2,000*l.* saved by a capitalist, and that a thousand houses and gardens owned by labourers contribute far more to the safety to the country, to the security of property, and to a wholesome social state, than one great estate owned by one man. There is, after all, no conservative force so great as the possession of property by a large proportion of the people. It is the old story of a broad basis instead of a body balanced on its apex. However large the increase of wealth accumulated in masses, however much the workmen may have to spend, no system can be safe or prudent which does not in practice promote economy and prudence among the labouring classes.

In this respect I believe that the British labourer lies under a special and peculiar disadvantage. Men are seldom prudent in the abstract; they must have before them some visible, tangible, and highly-prized reward for which they strive. In countries where the land is much subdivided, where petty holdings and houses and gardens, such as the labourer can hold and enjoy, are very numerous and always in the market, the labourer strives for the possession of such things. The French or the Belgian peasant or labourer longs to become a proprietor, the Irishman to acquire the tenant-right of a small farm. In countries where the public loans and the shares in joint-stock enterprises are arranged to attract petty holders, petty people are found to take them. But, under our English system, the land is daily more and more massed by the very rich—comparatively little that is successful has been done to make it accessible to the poor. Our public loans and our enterprises are managed by capitalists and financiers; the poor have little temptation to engage in joint-stock enterprises, and our commercial laws give them little security that they will be fairly and honestly treated if they do. Certain it is that the more wages are received the more is spent, the more the revenue derived from spirits and such things increases. There is not at present sufficient inducement to prudence and saving.

I believe, then, that our future more than on anything else depends on the solution of the most difficult problem, the reconciling of labour, for or under the guidance of capitalists, with prudence on the part of the labourer. We must, if possible, so arrange our land laws that garden-plots in convenient situations may be easily available to the industrious mechanic. We must so arrange our associated labour that the industrious and energetic man may earn in proportion to his industry and energy. We must so regulate the laws under which money is invested in industrial enterprise, that the small holder may be secure of fair treatment and have fair expectations of a good return. In one shape or another, if this nation is to hold its own, we must give sufficient facilities for and inducements to prudence and saving.

These are heavy and difficult tasks. Success will only be achieved after many attempts, and probably many failures. And here I must avow my belief that the Imperial Parliament, as it is now constituted, is not capable of efficiently dealing with the many social problems which present themselves, and of effecting the many reforms which we require. I have already said that I believe a highly centralised system in a great State is not compatible with freedom. Every day it becomes more and more apparent that our parliament is far too large and unwieldy a machine to deal with all the requirements of modern society. When great measures and great experiments are necessary we find its time frittered away on small measures and local measures, Mr. Gladstone's ministry was at any rate one of energy and action—politicians of one school say too much energy; but all the vigour of its youth and the strength of its majorities were spent on measures wholly local to Ireland, while England and Scotland were comparatively neglected. By the time that the attention of that ministry was turned to Britain, its forces were in a great degree exhausted. Another ministry has come into power, with a great majority, but the result of the session has shown how little can be done. The machine is too large and too cumbrous. Believing, then, that the social reforms which we require must necessitate many experiments in many directions; that to effect them we must enlist local experience, local energies, and local interests; that one parliament cannot do this, but that localised institutions may do it, I am so far a Home-ruler that I should like to see a large portion of our self-government transferred to local assemblies. In this respect, at any rate, I would in a great degree imitate the American system. I think that very much of the management of Irish affairs might be transferred to an Irish House of Representatives, or probably rather to two separate assemblies, representing two Irish provinces, north and south. I think that a very large portion of our Scotch affairs might be much better managed in a Scotch assembly. It may be that England might advantageously be split up into provinces. I feel confident that such provincial assemblies might do great good, and that very ample work would still be left for an Imperial Parliament.

Not only might many social reforms receive in local assemblies that attention and elaboration which they cannot have in a great parliament of the nation, but also I think that there would be very great advantage in the variety of local experiments which might be tried in different parts of the country, and under various conditions. One province would profit by the experience, the successes, and the failures of another; a healthy competition would be excited, and out of various trials progress, real and substantial, might be achieved. The difficulties in our way are so great that they will never be overcome without the concurrent efforts of many minds, and as the issue of many trials. Such efforts and such trials might, I think, be obtained under a sort of federal and provincial system of government. I do not think that they will be adequately obtained under the present system.

I have alluded to what seems to me the need of reform of the commercial law as regards the responsibilities of directors and agents and all those who are entrusted with other people's money. In my view, the English system in all things gives too much liberty to the individual, even to defrauding his neighbour, and too little protection to the community. It is surely a very unwholesome sign that all the great commercial frauds of recent years have gone unpunished, be it from the defect of the law, be it from the want of an efficient public prosecutor. Even I fear that the great and rich swindler often carries with him too much public sympathy. The poor man who steals or cheats to the value of sixpence, is sent to prison without sympathy and without mercy. Even the small debtor may still, I believe, be sent to prison. But the great financier, who has defrauded thousands of necessitous people of millions, is never convicted—he cannot be imprisoned for debt; he is speedily and effectually whitewashed, and begins a fresh career. I cannot think that associated undertakings can have a fair field till the law is strong enough to secure honesty in their management. In this, as in some other things, we must see that our system does not favour the rich.

In one respect most especially, protection to the public seems to be very much required. I mean in respect of those institutions which are designed to facilitate the economies and savings of the people—insurance offices, friendly societies, and the like. The receipts are immediate, the benefits are deferred, and nowhere is there such scope for fraudulent or imprudent management. In truth, in nothing has there been such fraud or recklessness. We have had eminent judges in several cases denouncing these frauds from the bench, but nothing has come of it—the perpetrators of the frauds have not been brought to justice. Constantly we see in the daily papers reports of most fraudulent cases which excite the indignation of the Lord Mayor and other right-minded magistrates before whom they come; but, somehow or other, whenever the thing looks ugly the matter is patched up, and the accused go free. I do submit that both more stringent laws and a better procedure for dealing with these cases are necessary.

One of the questions which has been specially submitted to you is, "What legislation should follow on the report of the Commission "on Friendly Societies?" Of the details of that subject I am not qualified to say much, but on the general subject of insurance I will venture to express my opinion that, seeing the enormous importance to the community of the machinery by which providence is promoted and rendered effectual, and the peculiar difficulties and risks which attend institutions to secure deferred benefits, when left in private hands, the Government should take a part much more active and effectual than any Government has yet proposed to undertake. In truth, I incline to the view, that much of the business of insurance should be undertaken by the State directly.

Local government and local taxation are subjects to which great attention has been paid by this Society, and my remarks on the necessity of decentralisation will show you that I, for one, attach to these subjects the most extreme importance. It has always been a main object of all my work in India to make a beginning among the natives of self-government, by enabling them to do for themselves, by the aid of local institutions, many things which it is impossible that a great Government should do for them. And in this country, also, I believe that the genius of our people and the ancient character of our institutions point in the same direction. Of late no doubt much has been done in the way of new forms of self-government, but I believe that there is still a want of system, a want of a proper demarcation of boundaries for local purposes, and a general want of method, which renders local government far from effective. We must consolidate our various forms of local government into one systematic whole.

Happily, it cannot be said, that as a people we now labour under an excessive taxation. A great reform has been wrought in that direction. But I may mention, as an ever present subject of discussion in a society such as this—the incidence of taxation—how far it falls fairly on different classes, how far the great masses of accumulated wealth, which most stand in need of protection, fairly pay for that protection; how far the cost of wars and a magnificent external policy is laid on those whose influence and whose organs create wars, so as to act as a deterrent from such courses. It is my impression that if every war were fairly paid for at the time by an increased income-tax, we should be sometimes much less inclined to adopt an unfriendly tone on very slight provocation.

And in my opinion perhaps the most important financial question of all in these days is, how far are nations or governments justified in throwing on posterity expenses incurred by themselves? Happily in this country we have not of late done much in this way, but the question is a very pressing one in India; and, as lenders, we in this country are enormously interested in the question whether all the bankrupt governments in the world can really charge their extravagances on their successors. Among the blessings of civilisation which we have communicated to Christians, Turks, Pagans, and infidels of all sorts, there is none which in these modern days they have so much appreciated as the system of State loans. To rotten governments nothing is more delightful. There is the double advantage that a loan both gives them an ample supply of money for their present necessities, and also builds up a strong interest bound to keep them on their legs. In India, to secure fidelity, native States keep their soldiers three years in arrear of pay; and so, if the King of the Cannibal Islands can raise some twenty millions on the London Stock Exchange—he cares not on what terms—he feels pretty secure that he cannot be overthrown so long as the financial powers of London can keep him up. In truth, this country is largely responsible for the extravagances of the world; and the question arises whether this may not be carried too far, and whether we may not some day awake to grand repudiations, by a generation which may with some show of reason say that they neither borrowed nor benefited by the money.

One or two more great subjects I shall barely mention.

Irish tenant-right is now being carried out in practice, but the whole broad question of tenant-right, or compensation for improvements in England and Scotland, is waiting for that practical discussion and solution, for which it is beginning to press.

Then there is that very difficult but most important subject, the game laws, which many have attempted to deal with, but no one has yet in any degree disposed of. Assuredly a solution of this question must be found.

The whole subject of female industrial employment is yet an open one. I for one believe that nothing could be worse, either for women or for the community in general, than that women should play the part of men, or obtain any sort of equality in the rights which have in all ages belonged to men. But there can be no sadder sight than to see women without adequate employment, and there are many branches of most useful industry which may, I think, be mainly given up to them.

Many other subjects might be mentioned, but I have said enough for the present.

I will only add that, for this subject of economy and trade, this great city of Glasgow where we are appears to offer greater opportunities for useful discussion than perhaps any other place in the kingdom. I will not offend the susceptibilities of our southern and western neighbours by calling it the second city in the empire—but this I may say, that while it is at least equal to any other, it far surpasses any other great city in the variety of its industries and its enterprises. There is scarcely an important branch of trade and commerce in which Glasgow does not participate; its citizens are shrewd and pushing to a degree which is nowhere surpassed, and in every quarter of the globe Glasgow men and Glasgow interests are largely represented. I feel that in such a place, I very unworthily and ignorantly fill the chair of this very important section of this great Association; but at least I may hope that, in Glasgow, my shortcomings do not endanger the success of our discussions, for I am confident that Glasgow men, as well as the strangers whom they so hospitably entertain, have done and will do ample justice to every subject which may be started; and I believe that Scotchmen will judge indulgently a brother Scotchman, the best part of whose life has been spent in the earnest attempt to do his duty to the many millions of our fellow-subjects in a distant dependency.

MISCELLANEA.

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I.--*Local Taxation.*

THE following is the introduction to the last return of local taxation statistics issued by the Local Government Board :—

"The total sum raised in England during the year 1872-73 by local taxation, properly so called, was 22,957,031*l.*, namely :—

	£
1. Levied by rates following on rateable property	18,571,538
2. „ tolls, dues, &c., falling on traffic	4,056,752
3. „ duties, falling on consumable articles	328,741

"The sums raised by loans or derived from other sources during the year in aid of local taxes amounted to 9,872,045*l.*, making the total receipt 32,829,076*l.* The aggregate disbursements for the same period amounted to 32,664,955*l.* The total amount of loans outstanding against the various local authorities at the close of the year was 72,093,124*l.*; and these loans are charged as follows, *i.e.* :—

	£
On rates	43,891,260
„ tolls and dues	26,336,864
„ duties	1,865,000
	72,093,124

"The valuation of the property upon which the debt of 43,891,260*l.* charged upon rates is secured, now amounts in gross estimated rental to 132,499,876*l.*, and in rateable value to 112,317,603*l.*, so that the total indebtedness of the several local authorities whose rates are charged with the repayment of loans barely exceeds one-third of the annual rateable value of the property assessable. The loans to the harbour authorities, and those effected by the corporation of the city of London, are secured upon other descriptions of property, such as tolls, dues, and duties.

"In the present return places under town improvement acts, districts under local boards of health, and municipal boroughs where the town council is the sanitary authority, have been all classed as urban sanitary authorities, and are now arranged with reference to the poor law union within which they are respectively situate. See pp. 7 *et seq.*

"The accounts of 808 urban sanitary authorties are summarised in the following pages. Of that number 67 are commissions under Town Improvement Acts, 581 are Local Boards of Health, and 160 are Municipal Boroughs. Several boroughs named hereafter among the urban sanitary authorities make no separate return of their disbursements for the purposes of the public health, those expenses being accounted for with the ordinary outlay for municipal objects. Thus it will be seen on reference to the Borough Rate Return for 1872-73, that Manchester laid out on 'Public Works Maintenance and Repairs,' 364,104*l.*; Birmingham, 166,743*l.*; and Oldham, 125,043*l.* The chief sanitary expenses are embraced by these sums.

"The returns under the Metropolitan Management Acts, pp. 1 *et seq.*, and those relative to Burial Boards, pp. 89 *et seq.*, have been also printed topographically according to the Poor Law Union method. Necessary indexes are placed after the returns, which are printed union-wise.

"The sums received in aid of rates entered in the second money column of Table I (p. iv), include the subventions paid out of the imperial revenue through Her Majesty's Treasury. The assisted rates were these:—

	£	£
Poor's Rate—		
Payments to medical officers, and for drugs (moiety)	125,627	
Salaries of schoolmasters and schoolmistresses (whole)	36,098	
		161,725
County and Rural Police Rates—		
Pay and clothing of police (one-fourth)	161,826	
Prosecution and maintenance of prisoners	167,660	
		329,486
Borough and Town Police Rates—		
Pay and clothing of police (one-fourth)	116,105	
Prosecution and maintenance of prisoners	52,243	
		168,348
Metropolitan Police Rates—		
Pay and clothing of police (one-fourth) and other charges	—	224,265
Metropolitan Local Management Rates—		
Fire brigade	—	10,000
Corporation of London—		
Prosecutions	1,034	
Prisons	1,068	
		2,102
Total	—	895,926

"The Treasury subventions tabulated here are paid to the various local authorities, and are brought to account in the annual returns summarised in Table I, but in addition to the sums set out above, and which, as shown, amount to 895,926*l.*, payments were made in aid of local rates to defray the salaries of poor law auditors, 17,394*l.*; or rates on government property, 63,060*l.*; and for the maintenance of prisoners in county and borough prisons, removal of convicts, and maintenance in reformatory and industrial schools, beyond the sums recouped to the county and borough authorities, as stated above, 190,560*l.*; hence the total subventions of the year amounted to 1,166,940*l.*

"A summary of the rates raised and expended by the various local authorities, and of the amount of loans outstanding against them, will be found under Table I.

TABLE I.—*Rates.*

Source of Revenue.	Year of the Return.	Number of Places.	Receipt.			Total Expenditure.	Loans Outstanding at the Close of the respective Accounts.
			From Rates.	From all other Sources, including Loans.	Total.		
			£	£	£	£	£
1. Poor's rate, excluding county, borough, police, highway, and burial board rates (*a*)	1872–73	647 14,895	8,331,475	467,343	8,798,818	8,567,441	3,142,374
2. County and rural police rates (*b*)	'72–73	64	1,714,637	997,025	2,711,662	2,663,689	3,247,815
3. Borough and town police rates (*c*) (*see* also Table II.)	'72–73	223	1,304,397	1,496,070	2,800,467	3,106,196	6,613,093
4. Highway rate (*d*)	'71–72	719 15,273	1,410,292	52,154	1,462,446	1,487,820	43,560
5. Metropolitan local management rate, excluding the consolidated rate	'72–73	41	1,379,343	517,690	1,897,033	1,824,298	1,696,587
6. Metropolitan Board of Works, consolidated rate, excluding coal and wine duties (*e*)	'72	1	269,705	434,820	704,525	1,083,382	*8,319,258
7. Metropolitan police rate (*f*)	'72–73	1	626,270	347,977	974,247	954,851	—
8. City of London police rate (*g*)	'72	1	49,506	21,743	71,249	70,951	—
9. City of London ward rate (*g*)	'72		4,947	—	4,947	4,466	—
10. Urban sanitary rates	'72–73	808	3,094,251	3,505,403	6,599,654	6,416,822	18,173,644
11. Lighting and watching rates	'72–73	243	41,933	851	42,784	41,643	—
12. Sewers rate	'72–73	52	38,416	3,213	41,629	44,434	28,192
13. Drainage & embankment rates	'72–73	145	154,081	50,480	204,561	203,118	1,264,086
14. Burial Board rate	'72–73	513	134,778	209,396	344,174	363,078	1,279,920
15. Church rate	'72–73	268	17,507	2,292	19,799	19,280	82,701
Total of rates	—	33,894	18,571,538	8,106,457	26,677,995	26,851,469	43,891,260

* Exclusive of monies advanced out of consolidated stock to metropolitan districts and parishes.

Authority for the additional rates in the table above—

(*a*) 1. Poor's Rate, No. 103 (D). Poor Rates and Pauperism, Sess. 1873.
(*b*) 2. County and Rural Police Rates, No. 318. County Rates (England), Sess. 1874.
(*c*) 3. Borough and Town Police Rates, No. 339. Municipal Borough Rates (England), Sess. 1874.
(*d*) 4. Highway Rate [C, 1052.] Highways, Sess. 1874.
(*e*) 6. Metropolitan Board of Works, Consolidated Rate, &c., No. 17. Board's Report for 1872.
(*f*) 7. Metropolitan Police Rate, No. 177. Metropolitan Police, Sess. 1873.
(*g*) 8, 9. City of London Police and Ward Rates, No. 301. Chamber of London, Sess. 1873.

Municipal Boroughs appear both in the preceding Table and the following one. In the first with regard to rates, and in the second by reason of the tolls, dues, &c., which form portion of their revenue, and therefore are properly entered in the next Table.

Table II.—*Tolls and Dues.*

Source of Revenue.	Year of the Return.	Number of Places.	Receipt.			Total Expenditure.	Loans Outstanding at the Close of the Respective Accounts.
			Tolls and Dues, also Rents.	From all other Sources, including Loans.	Total.		
			£	£	£	£	£
16. Corporation of London tolls and rents (*a*)	1872	1	186,026	175,428	361,454	372,084	2,243,600
17. City of London markets (*b*)	'72		19,331	20,003	39,334	21,073	1,075,000
18. Borough tolls, dues, rents, &c. (*see also* Table I)	'72–73	223	636,367	—	636,367	636,367	—
19. Turnpike tolls (*c*)	'72	800	705,837	50,187	756,024	787,620	2,294,806
20. Bridge and ferry tolls	'72–73	42	60,653	21,465	82,118	66,616	246,816
21. Market and fair tolls	'72–73	33	50,680	15,191	65,871	42,177	184,598
22. Light dues (*d*)	'72	1	396,235	5,726	401,961	277,067	—
23. Pilot dues (*e*)	'72	61	405,641	6,008	411,649	411,326	—
24. Harbour dues	'72–73	70	1,595,982	1,471,080	3,067,062	2,869,355	20,292,044
Total of tolls and dues	—	1,231	4,056,752	1,765,088	5,821,840	5,483,685	26,336,864

Authority for the additional taxes in the table above—

(*a*) Corporation of London. Abstracted from the Account of the City's Estates for 1872.

(*b*) City of London Markets, *i.e.*, the Coal, Meat and Poultry, and Newgate Markets, No. 301. Chamber of London, Sess. 1873.

(*c*) Turnpike Tolls, [C. 1051.] Turnpike Trusts, Sess. 1874.

(*d*) Light Dues, No. 56. Mercantile Marine Fund, Sess. 1874. Fees are included with the Light Dues above.

(*e*) Pilot Dues and Fees for Licences and Certificates, No. 232. Pilotage, Sess. 1873.

That portion of the income of the city of London entered in Table II, and of which no account is laid before Parliament, has been abstracted from the City Blue-book for 1872,

TABLE III.—*Duties.*

Source of Revenue.	Year of the Return.	Number of Places.	Receipt.			Total Expenditure.	Loans Outstanding at the Close of the Account.
			Duties.	From all other Sources.	Total.		
			£	£	£	£	£
25. City of London—*							
Coal duty at 9*d.*	1872	1	218,234†	—	218,234	328,487	1,865,000
„ 4*d.*			96,993†	—	96,993		
Wine duty			12,760	500	13,260		
Grain duty (35 and 36 Vict.)			754	—	754	1,314	—
Total of duties	—	1	328,741	500	329,241	329,801	1,865,000

* Authority for the table above—No. 301, Chamber of London, Sess. 1873.

† The net duty, *i.e.*, after deducting the drawback and duty returned on coals.

The total revenue of the city of London, when the income derived from local taxation and from all other sources is brought to account, amounted to 1,085,033*l.* during the year 1872-73; that is inclusive of 278,808*l.*, the receipts under the Sewers Consolidated Rate Account, as given in the annual statement of the Chamberlain of the city of London, and entered among the metropolitan local management rates, at p. 2.

Local Taxation Summary, 1872-73.

Source of Revenue.	Amount of Impost.	Other Sources of Revenue, including Loans.	Total Revenue.	Total. Expenditure.	Loans Outstanding at the Close of the respective Accounts.
	£	£	£	£	£
Table I. Rates	18,571,538	8,106,457	26,677,995	26,851,469	43,891,260
„ II. Tolls and dues	4,056,752	1,765,088	5,821,840	5,483,685	26,336,864
„ III. Duties	328,741	500	329,241	329,801	1,865,000
Grand total	22,957,031	9,872,045	32,829,076	32,664,955	72,093,124

"FREDERICK PURDY,
"Principal of the Statistical Department.

"*Local Government Board, Whitehall,*
"20*th October*, 1874."

II.—*Mineral Statistics of the United Kingdom.*

MR. HUNT, the keeper of the mining records, in the last annual return issued by him, gives a minute account of the way in which the mineral statistics of the United Kingdom are collected, as well as a summary of the results. The following are the principal passages in the introduction :—

"The collection of the returns for the mineral statistics for 1873 has been attended with considerable difficulty, the causes mentioned in the 'Introduction' to the volume for 1872 remaining unchanged. Notwithstanding that the returns required for 1873 from the collieries and metalliferous mines,—under the two new Acts,—had already been applied for by, and in most cases made to, the Inspectors, I received authority to solicit from the colliery and mine owners a continuation of that confidence which has enabled me for twenty-five years to compile annual returns of our mineral wealth, which have been admitted to be of great value. The result of this application for voluntary returns has been pleasingly successful. Some persons have seriously complained of this second application; a few have failed to reply to it. Many, however, have not only given the information sought for in useful detail, but have materially aided the inquiry by their influence in their own districts. To these I am under most especial obligations.

"The value of all statistics is determined by their accuracy. It appears necessary, therefore, to state distinctly the sources from which the 'mineral statistics' have been obtained.

"1. *The Metalliferous Mines.*—The returns made to the Inspector for Cornwall, Devonshire, and Somersetshire have been deposited by the Home Secretary in this office. These have, of course, been used; but as only the ore raised is required by the Act, many of the mines have given this alone. Therefore, the produce for metal, and the value, had still to be ascertained.

"This has been done by obtaining the returns made to the Stannary Court and to the Duchy of Cornwall, and by carefully examining the 'ticketing papers' of the copper ore sales in Cornwall and at Swansea. This office has obtained in addition returns from a large number of the mines of Cornwall and Devonshire, and from tin streams and open workings, which do not come under the operation of 'The Metalliferous Mines Regulation Act, 1872.'

"The returns of production from all the mines in other parts of the United Kingdom have been obtained, as they have always hitherto been, by my direct application for them.

"2. *The Collieries.*—To the largest number of the coal owners of the United Kingdom a circular was sent (a copy is given below),* soliciting a return of the coal raised from their collieries in 1873, and other information. Two-thirds of the circulars issued were promptly returned, with the questions most fully answered.

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* "SIRS, "*Mining Record Office.*

"The third paragraph of clause 38 of the 'Coal Mines Regulation Act, 1872,' prevents my seeing the return which you will have made to the Inspector of Collieries. I am, therefore, reluctantly compelled to solicit your obliging attention to the annexed questions, to enable me to produce the Mineral Statistics of the United Kingdom for 1873 with the desired accuracy.

"The replies with which you may favour me will be regarded *as strictly confidential*, and they will be used only *in strict obedience with the Act*, to enable me to compute 'the aggregate result of such returns with respect to any particular county or Inspector's district.'

"These aggregates will be published, as they have hitherto been since 1854, in the 'Mineral Statistics,' and I hope a continuance of that confidence which the

Several Coal Mining Associations furnished me, in confidence, with exact information; and from the overseers of several parishes I have received similar assistance. In addition, the production of large districts, collected with great care, was placed at my disposal. The information thus obtained has enabled me to compute with accuracy the production of collieries amounting to more than 120,000,000 tons.

"All the great coal-carrying railways of the United Kingdom and several of the canals have furnished the most detailed returns of the coal carried from each coal-field and its distribution, frequently giving, in confidence, the collieries from which it was obtained. All the shipments of coal, both to foreign parts and coastwise, are furnished by the order of the House of Commons, and all the collieries sending coal to within the London district are given in the city of London returns. Nearly all the iron masters have furnished me with the quantities of coal used in their works from their own collieries, or purchased from others. From the information thus obtained I have been enabled to compute that about 7,000,000 tons of coal were produced beyond the quantity named above. But I desire this to be clearly understood to be *an estimate*, although, I am satisfied, a fairly exact one.

"3. *Smelting works.*—As already stated, the owners of blast furnaces, of mills and forges, and of tin plate-works have responded most freely to the application made from this office; and to the smelters of tin, copper, lead, and zinc, and to the proprietors of metal precipitating works, I am under considerable obligations for much information.

"4. *Earthy minerals.*—From the liberal way in which the proprietors of clay works, barytes manufacturers, and others have supplied returns, I am enabled to give additional matter in the present volume.

"In the movement of our coal we find, therefore, that there has been an increase in the quantities carried—

	Tons.
By railways and canals, of	4,610,180
And a falling off in our shipments of coal of	255,104
There being, therefore, a total increase in the quantity of coal carried by railways, canals, and by sea, of	4,355,076

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coal interests of this country have constantly shown will enable me to give a satisfactory return, at an early date, of the production of coal and other minerals for 1873.

"I am, Sirs, most faithfully yours,

"ROBERT HUNT,

Keeper of Mining Records.

"MINERAL STATISTICS FOR 1873.

"1. Name and situation of colliery.

"2. Name of the owner, or of the firm, working the same.

"3. The quantity of coal raised in 1873, *in statute tons.*

"4. The quantity of slack raised in 1873, *in statute tons.*

"5. Prices at pit bank.

"6. Quantities of other minerals raised in 1873.

"Iron stone.
"Lime stone.
"Fire Clay.
"Oil shale.

"Any information as to the distribution of coal, &c., will be valuable.

"The following attempt has been made to compile a table showing how the coal raised has been used. The Metallurgical Returns are based upon information received from the smelters. The coal used on railways is computed from information furnished to the Board of Trade of the miles travelled by trains, and the quantity of coal used per mile is the average of several published returns.

"The other estimates are founded principally upon the data obtained by me for the Royal Coal Commission, corrected by recent inquiries.

Coal Used in Smelting Ores, Refining, Desilverising, and Manufacture of Crude Metals and Bar Iron in the United Kingdom.

	1872.		1873.			
	Ore Smelted, and Metal Obtained.	Coal Used in Smelting, &c.	Ore Smelted, and Metal Obtained.	Coal Used in Smelting, &c.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
TIN.						
Ore, British....	14,266	33,500	14,885	42,422	8,922	—
Metal "	9,560		9,972			
Ore, Foreign	1,024		5,612			
Metal "	8,342		7,791			
COPPER.						
Ore, British....	90,551	*397,947	80,188	360,195	—	19,752
Metal "	5,609		5,240			
Ore, Foreign	317,868		*427,315			
Metal† "	21,788		20,956			
LEAD.						
Ore, British‡	83,968	185,762	73,400	179,540	—	6,222
Metal "	60,455		56,035			
Ore, Foreign	14,560		11,668			
Metal "	69,941		62,563			
ZINC.						
Ore, British....	18,542	200,575	15,969	181,450	—	19,125
Metal "	5,191		4,470			
Ore, Foreign	32,662		30,087			
Metal "	14,761		20,031			
IRON.						
Ore, British....	15,582,251	17,191,918	6,566,451	15,577,499	—	473,386
Metal "	6,741,929			16,718,532		
Ore, Foreign	955,032			967,536		
Actual total decrease	—	—	—	—	—	509,563
Bar or merchant iron	5,409,203	18,120,830	5,391,523	18,061,602	—	59,228

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* These quantities included—

In 1872 .... 253,000 tons, coppery pyrites.
" '73 .... 323,910 "

† Imported; much of it to be refined.

‡ The coal is estimated for smelting British and Foreign ores, for refining much of the foreign lead, and for desilverising the whole.

Railway Consumption of Coal.

	Miles.	Tons.
1872.		
Number of miles travelled by trains	190,720,719	—
Coal consumed	—	3,661,150
1873.		
Number of miles travelled by trains	197,451,216	—
Coal consumed	—	3,790,000
Increased consumption................	—	128,850

Coal Brought into the London District.

	1872.	1873.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.
By sea	2,548,418	2,665,680	116,762	—
„ canal	8,236	11,195	2,959	—
„ railway	4,999,268	5,147,413	148,145	—
	7,555,922	7,824,288	268,366	—

General Summary of the Uses for which the Coal Raised was Employed.

	Tons.
Coal exported to foreign countries	12,712,222
„ used on railways	3,790,000
Coal in iron manufacture	35,119,709
„ smelting other metals	763,607
„ mines and collieries	9,500,000
„ steam navigation	3,650,000
„ steam power in manufactories*	27,550,000
„ gas manufacture	6,560,000
„ waterworks	650,000
„ potteries, glassworks, brick, lime, and cement kilns	3,450,000
„ chemical works and all other sundry manufactures	3,217,229
„ domestic consumption	20,050,000
Total	127,012,767

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* Approximate number of factories at work in the United Kingdom, and spindles running:—

Manufactures.	Number of Factories.	Number of Spindles Running.	Number of Power Looms.
Cotton	2,500	34,000,000	450,000
Flax	500	1,500,000	32,500
Hemp, jute and shoddy	220	150,000	700
Silk	700	750,000	10,000
Woollen	220	2,500,000	—
Worsted	650	1,750,000	56,000

General Summary of the Returns of the Mineral Produce of the United Kingdom in 1873.

Minerals.	Quantities.		Value.
	Tons.	cwts.	£
Coal	127,016,747	–	47,631,280
Iron ore	15,577,499	–	7,573,676
Copper ore	80,188	10	342,708
Tin ore	14,884	17	1,056,835
Lead ,,	73,500	10	1,131,907
Zinc ,,	15,969	–	61,166
Iron pyrites	58,924	3	35,485
Arsenic	5,448	17	22,854
Bismuth	1	4	68
Cobalt	–	6	12
Manganese	8,671	6	57,766
Ochre and umber	6,368	8	5,410
Wolfram	49	19	526
Clay, fine and fire, and shale (*estimated*)	1,785,000	–	656,300
Salt	1,785,000	–	892,500
Barytes	10,269	11	7,993
Other earthy minerals (*estimated*)	—		3,000
Total value of the minerals produced in the United Kingdom in 1873	—		59,479,486

Metals Obtained from the Ores Enumerated, &c., in the United Kingdom in 1873.

Description of Metal.	Quantities.	Value.
		£
Pig iron ...... tons	6,566,451	18,057,739
Tin ...... ,,	9,972	1,329,766
Copper ...... ,,	5,240	502,822
Lead ...... ,,	54,235	1,263,375
Silver ...... oz.	537,707	131,077
Zinc ...... tons	4,471	120,099
Other metals (*estimated*)	—	5,000
Total value of metals produced from British ores in 1873	—	21,409,878

Total Value of the Metals Produced; Coals and Other Minerals Raised, in 1873.

Metal, value of, as above	21,409,878
Coal	47,629,787
Minerals, earthy, &c.	1,681,834
Total value	70,722,992

"As I have only been enabled to produce these returns by the liberal assistance of our colliery owners, mine proprietors, agents, and others, I feel it to be duty to express my sincere thanks to them. My obligations to those gentlemen who have aided me in computing the production of coal in their own districts are many. I am no less indebted to those inspectors of collieries and metalliferous mines who have, in the most friendly manner, assisted my inquiries to the limits of the restrictions, as to coal returns especially, under which they labour. To these, and to the secretaries and managers of our railways and canals, from whom I have received the most courteous attention, and information, which was prepared for my use by the expenditure of much valuable time, I must also tender my thanks, as a small acknowledgment of the liberal aid they have given to the objects of the Mining Record Office.

"ROBERT HUNT, F.R.S.,
"Keeper of Mining Records.

"*Mining Record Office, Museum of Practical Geology,*
"*Jermyn Street, London, October,* 1874."

III.—*Agricultural Returns of Great Britain.*

FROM the *Journal of the Society of Arts,* 13th November, 1874:—

"The abstract of the agricultural returns for each division of Great Britain, which has just been published, affords an interesting key to the changes that have taken place in farming operations in this country during the past year.

"In the first place, a considerable extent of land was brought under tillage as compared with the area cultivated in 1873. This increase amounted in England to 114,810 acres, in Wales to 31,650 acres, and in Scotland to 17,839 acres. The subjoined table shows the several variations in the culture of the respective crops and of pasture, but it may be useful to draw attention to a few particulars which it exhibits. As regards the acreage under corn crops it will be observed that there was an increase in England, while in Wales and Scotland there was a considerable decrease. The acreage under wheat in England shows a large increase, and this increase appears to have taken place to a great extent at the expense of the other corn crops. The acreage under barley was less in each division of the kingdom; as was also that of oats; indeed, the acreage under this latter crop is the smallest that has been returned since agricultural statistics have been collected, viz., since 1867.

"As respects green crops it will be noticed that there was a large increase in the acreage under turnips and swedes in England, and a decrease in Scotland. The other variations are unimportant. Flax was less cultivated in each division of the country, but the acreage under hops was extended by 2,500 acres. As compared with the previous year there was considerably less land under bare fallow, especially in England. In consequence of the season there was a great decrease in the acreage of both artificial and permanent grass land kept for hay, which in a great measure accounts for the increase of pasture land. The increase in permanent pasture, however, is partly due to the extension of pasture on the hill sides, &c.

Statement of the Increase (+) *or Decrease* (−) *in the Acreage of Crops in* 1874 *over* 1873, *in England, Wales, and Scotland.*

Crops.	England.	Wales.	Scotland.
	Acres.	Acres.	Acres.
Wheat	+138,638	+ 1,017	+ 265
Barley or bere	− 36,461	−11,188	− 277
Oats	− 62,389	− 9,272	− 8,182
Rye	− 2,975	− 332	− 1,099
Beans	− 26,612	− 319	− 586
Peas	− 6,838	− 691	− 137
Total under corn crops	+ 3,363	−20,785	−10,016
Potatoes	+ 5,152	+ 443	+ 153
Turnips and swedes	+ 20,550	− 22	− 9,144
Mangold	− 2,126	− 740	− 222
Carrots	− 1,239	− 107	− 230
Cabbage, kohl, rabi, and rape	− 5,540	− 282	+ 345
Vetches, lucerne, &c.	− 1,933	− 612	+ 294
Total under green crops	+ 14,864	− 1,276	− 8,804
Flax	− 4,734	− 73	− 482
Hops	+ 2,523	+ 4	—
Bare fallow, or uncropped arable land	− 41,885	− 2,700	− 1,707
Clover, sanfoin, and grasses under rotation—			
For hay	− 97,855	− 1,824	+ 6,834
Not for hay	+ 38,199	+ 6,347	+22,223
Total	− 59,656	+ 4,523	+29,057
Permanent pasture, meadow, or grass, not broken up in rotation—			
For hay	−135,785	+ 183	− 122
Not for hay	+336,120	+51,774	+ 9,913
Total	+200,335	+51,957	+ 9,791
Total acreage under all kinds of crops, &c.	+114,810	+31,650	+17,839

"The following table is a corresponding return for each division of the country, showing the amount of live stock in 1874 as compared with that kept in the previous year.

"It will be observed that there was a general increase in both cattle and sheep. This was doubtless owing to the high price of meat. The large increase in the number of unbroken horses and of mares used for breeding was caused by the scarcity of horses in the previous year. It must be borne in mind that the number of pigs given in the agricultural returns is exclusive of pigs kept by cottagers, and that it does not therefore represent the total of this class of live stock reared in the country.

Statement of the Increase (+) *or Decrease* (–) *of Live Stock in* 1874 *over* 1873, *in England, Wales, and Scotland.*

Live Stock.	England.	Wales.	Scotland.
	No.	No.	No.
Horses—			
Used solely for agricultural purposes, &c.	+ 2,691	– 554	+ 743
Unbroken horses, of any age, &c.	+ 25,695	+ 3,804	+ 2,916
Total	+ 28,386	+ 3,250	+ 3,659
Cattle—			
Cows and heifers in milk or in calf	+ 33,565	+ 4,004	– 1,286
Two years of age and above	+ 54,092	+ 18,195	+ 17,548
Under 2 years of age	+ 44,248	+ 49	– 9,473
Total	+ 131,905	+ 22,248	+ 6,789
Sheep—			
One year old and above	+ 533,403	+ 60,772	+ 76,799
Under 1 year old	+ 156,504	+ 37,062	+ 21,766
Total	+ 689,907	+ 97,834	+ 98,565
Pigs	– 82,636	+ 2,580	+ 2,629

"The early publication of the abstract of the returns this year will, it is hoped, be appreciated by all interested in knowing the agricultural condition of the country."

IV.—*Physical and Mental Condition of the Convict Population.*

The directors of the English convict prisons have just published two papers in illustration of this subject. They are based upon two censuses of the convict population (male and female) taken on the 31st March of the years 1862 and 1873. In the first of the two papers the results of these censuses are given in detail in a series of tables: in the second paper, which is headed "Report on the Health of Convicts," the death-rates of male and female convicts are given for each year from 1855 to 1872, and they are compared with the rates prevailing among the young adult population of England and of London, and the inmates of several charitable and public institutions in the metropolis.

The tables exhibit an increased death-rate in the last years of the series, both inside and outside our convict prisons. There is also a striking coincidence in the dates of highest and lowest death-rates. They occurred among male convicts in 1865, among female convicts in 1864; and among the general population of England and London in the year before or the year after. As to the cause or causes of the increased mortality of late years the figures in the tables furnish no information beyond showing that, whatever they were, they displayed a twofold intensity within the walls of our convict prisons.

The tables in the first paper will be found to afford useful information respecting the ages of the convict population, their physical and mental condition, and the relation of those conditions to the crimes for which, at the date of the census of 1862, they were undergoing punishment. The figures confirm the already well known fact that the prison population is younger than the mixed outside population, while they exhibit in a striking manner the tendency of the imbecile portion of the prisoners to the commission of such crimes as those of arson, murder, and rape. This interesting and most important fact was first pointed out by Dr. Guy, and referred to in a pointed manner in his inaugural address. The reports to which we are referring were prepared by him for the direction of convict prisons, and will add some useful items of information to what was already known of this important section of the *"classes dangereuses."*

V.—*Lloyd's Statistics of Marine Losses in* 1872.

We are indebted to the courtesy of the Committee and Secretary at Lloyd's for the annexed statistics of casualties at sea and the results thereof, as reported in *Lloyd's List* during the year 1872. The tables are in continuation of a similar series for former years which were printed and published by the Committee at Lloyd's; but the publication of which was discontinued. A good deal of disappointment being felt in many quarters at the loss of a statistical record which was believed to be of considerable value, both actual and potential, the editors of this *Journal*, after consultation with the Executive Committee of the Council, were induced to communicate with the Secretary at Lloyd's in order to secure for publication in the *Journal* a continuation of at least the more important of the tables formerly published. As the result, the Secretary at Lloyd's has supplied the annexed tables, which present, in a compact form, the statistics of casualties reported at Lloyd's in 1872. They are five in number and contain the following particulars :—

I.—A Table showing the Number of Wrecks and Casualties to Sailing Vessels and Steamers reported in *Lloyd's List* during the Year 1872, and the respective Percentages thereon, compared with the Average Number and Percentages for the same period of the Six Previous Years.

II.—A Table showing the Results of Wrecks and Casualties to Ship and to Cargo, with Salvage Services, Crews Saved or Drowned and Lives Lost, so far as reported in *Lloyd's List*, during the Year 1872, and the respective Percentages thereon, compared with the Average Number and Percentages for the same period of the Six Previous Years.

III.—A Table showing the Number of Wrecks and Casualties to Sailing Vessels reported in *Lloyd's List*, during the Four Quarters of 1872, and the respective Percentages thereon, compared with the Average Number and Percentages for the same periods of the Six Previous Years.

IV.—A Table showing the Number of Wrecks and Casualties to Steamers reported in *Lloyd's List* during the Four Quarters of 1872, and the respective Percentages thereon, compared with the Average Number and Percentages for the same periods of the Six Previous Years.

V.—A Table showing the Results of Wrecks and Casualties to Ship and to Cargo, Salvage Services, Crews Saved or Drowned, and Lives Lost so far as reported in *Lloyd's List*, during the Four Quarters of 1872, and the respective Percentages thereon, compared with the Average Number and Percentages for the same periods of the Six Previous Years.

I.—*A Table showing the Number of Wrecks and Casualties to Sailing Vessels and Steamers Compared with the Average Number and Percentages*

Sailing Vessels.	First Half-Year.				Second Half-Year.				Annual Total.			
	1872.		Six Years' Average.		1872.		Six Years' Average.		1872.		Six Years' Average.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
1. *Missing*	50	0·97	56	1·14	29	0·41	29	0·52	79	0·64	85	0·81
2. *Abandoned*—												
Recovered ...	38	0·73	34	0·69	47	0·67	43	0·76	85	0·70	76	0·73
Lost	148	2·86	123	2·51	222	3·16	124	2·22	370	3·03	248	2·35
Total	186	3·59	157	3·20	269	3·83	167	2·98	455	3·73	324	3·08
3. *Collision*—												
Not damaged	210	4·06	201	4·10	284	4·04	257	4·59	494	4·05	458	4·36
Damaged........	583	11·26	527	10·74	749	10·65	594	10·61	1,332	10·91	1,122	10·67
Sunk	64	1·24	73	1·48	82	1·17	79	1·41	146	1·20	152	1·44
Total	857	16·56	801	16·32	1,115	15·85	931	16·61	1,972	16·16	1,732	16·47
4. Sinking from causes other than collision	141	2·72	176	3·58	171	2·43	194	3·46	312	2·56	369	3·52
5. *Stranded*—												
Got off	690	13·34	691	14·08	858	12·20	715	12·77	1,548	12·68	1,406	13·38
Not got off	551	10·65	510	10·39	841	11·96	678	12·11	1,392	11·40	1,188	11·31
Subsequent fate not reported	55	1·06	169	3·44	140	1·99	201	3·59	195	1·60	370	3·52
Total	1,296	25·05	1,371	27·91	1,839	26·15	1,594	28·47	3,135	25·68	2,965	28·21
6. Capture	—	—	7	0·14	—	—	15	0·27	—	—	24	0·21
7. Piracy...............	—	—	2	0·05	1	0·01	3	0·05	1	0·01	6	0·05
8. Burnt or on fire	55	1·06	69	1·41	67	0·95	83	1·49	122	1·00	153	1·45
9. Dismasted or disabled........	199	3·84	187	3·81	314	4·46	291	5·19	513	4·20	445	4·55
10. Jettison of cargo under deck	105	2·03	90	1·83	90	1·28	93	1·66	195	1·60	183	1·74
11. Jettison of deck-load or washed overboard	68	1·31	57	1·16	179	2·55	88	1·57	247	2·02	145	1·38
12. Leaky...............	589	11·38	506	10·31	817	11·62	623	11·13	1,406	11·52	1,130	10·75
13. Loss of anchor or chains	155	3·01	270	5·51	325	4·62	269	4·81	480	3·93	539	5·13
14. Machinery damaged	—	—	—	—	—	—	—	—	—	—	—	—
15. Mutiny, sickness, or casualties to crew	164	3·17	122	2·48	137	1·95	166	2·11	301	2·47	238	2·27
16. Ship dmged., &c.	1,304	25·20	1,027	20·92	1,663	23·64	1,085	19·37	2,967	24·30	2,112	20·09
17. Water-logged....	5	0·09	11	0·22	17	0·24	17	0·30	22	0·18	28	0·27
Number of casualts.	5,174	—	4,912	—	7,033	—	5,601	—	12,207	—	10,513	—
Number of vessels	4,887	—	4,523	—	6,564	—	5,215	—	11,451	—	9,738	—

reported in "Lloyd's List" during the Year 1872, *and the respective Percentages thereon, for the same period of the Six Previous Years.*

First Half-Year.				Second Half-Year.				Annual Total.				Steamers.
1872.		Six Years' Average.		1872.		Six Years' Average.		1872.		Six Years' Average.		
Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	
4	0·40	4	0·70	4	0·31	2	0·30	8	0·35	6	0·48	1. *Missing*
												2. *Abandoned*—
—	—	1	0·14	—	—	—	—	—	—	1	0·13	Recovered
4	0·40	1	0·28	6	0·46	1	0·21	10	0·44	3	0·23	Lost
4	0·40	2	0·42	6	0·46	2	0·30	10	0·44	4	0·36	Total
												3. *Collision*—
149	15·05	93	15·82	185	14·27	139	19.36	334	14·61	232	17·77	Not damaged
116	11·72	76	12·90	172	13·27	99	13·74	288	12·60	175	13·36	Damaged
11	1·11	9	1·64	22	1·70	14	1·92	33	1·44	23	1·80	Sunk
276	27·88	178	30·36	379	29·24	252	35·02	655	28·65	431	32·93	Total
18	1·82	15	2·63	35	2·70	19	2·66	53	2·32	34	2·65	4. Sinking from causes other than collision
												5. *Stranded*—
203	20·50	114	19·48	253	19·52	142	19·76	456	19·95	257	19·63	Got off
38	3·84	26	4·42	71	5·48	34	4·81	109	4·79	60	4·63	Not got off
9	0·91	14	2·47	9	0·69	9	1·34	18	0·78	24	1·85	Subsequent fate not reported
250	25·25	155	26·37	333	25·69	186	25·91	583	25.52	341	26·11	Total
—	—	1	0·14	—	—	—	—	—	—	1	0·11	6. Capture
1	0·10	—	—	—	—	—	—	1	0·04	—	—	7. Piracy
33	3·33	16	2·69	26	2·01	21	2·91	59	2·58	37	2·82	8. Burnt or on fire
7	0·71	5	0·97	9	0·69	10	1·43	16	0·70	15	1·20	9. Dismasted or disabled
16	1·62	8	1·36	12	0·93	7	1·09	28	1·22	16	1·22	10. Jettison of cargo under deck
7	0·71	7	1·19	23	1·78	6	0·90	30	1·31	13	1·03	11. Jettison of deckload or washed overboard
24	2·42	19	3·20	25	1·93	16	2·29	49	2·14	35	2·70	12. Leaky
4	0·40	9	1·59	13	1·00	6	0·81	17	0·74	15	1·16	13. Loss of anchors or chains
245	24·75	108	18·43	300	23·15	125	17·40	545	23·84	233	17·86	14. Machinery damaged or short of coal
16	1·62	8	1·33	13	1·00	7	1·04	29	1·27	15	1·17	15. Mutiny, sickness, or casualties to crew
85	8·59	50	8·62	118	9·11	56	7·82	203	8·88	107	8·18	16. Ship dmgd., &c.
—	—	—	—	—	—	—	—	—	—	—	—	17. Water-logged
990	—	588	—	1,296	—	720	—	2,286	—	1,303	—	Number of casualties
957	—	563	—	1,259	—	695	—	2,216	—	1,258	—	Number of steamers

II.—*A Table showing the Results of Wrecks and Casualties to Ship and to Cargo, with Salvage during the Year* 1872, *and the respective Percentages thereon, compared with the*

Sailing Vessels.	First Half-Year.				Second Half-Year.				Annual Total.			
	1872.		Six Years' Average.		1872.		Six Years' Average.		1872.		Six Years' Average.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Results to Ship—												
Total loss	911	18·64	904	19·99	1,298	19·77	1,094	20·98	2,209	19·29	1,998	20·52
Constructive loss	41	0·84	103	2·28	62	0·94	98	1·89	103	0·90	203	2·08
Great damage........	321	6·56	516	11·41	583	8·88	666	12·78	904	7·89	1,183	12·15
Minor damage	2,633	53·88	1,989	43·94	3,409	51·94	2,167	41·56	6,042	52·76	4,155	42·67
Raised after sinking....................	25	0·51	17	0·38	20	0·30	11	0·22	45	0·39	28	0·29
Not damaged or results unknown	956	19·56	993	21·97	1,192	18·16	1,176	22·56	2,148	18·76	2,170	22·28
Total	4,887	—	4,523	—	6,564	—	5,215	—	11,451	—	9,738	—
Results to Cargo so far as reported—												
All lost	470	9·62	539	11·93	595	9·06	554	10·64	1,065	9·30	1,094	11·24
Part lost	272	5·57	256	5·67	373	5·68	280	5·38	645	5·63	535	5·50
All saved................	9	0·17	23	0·50	18	0·27	15	0·30	27	0·24	38	0·39
Forwarded	3	0·06	20	0·45	3	0·05	10	0·58	6	0·05	30	0·31
Heated	1	0·02	11	0·25	7	0·11	10	0·58	8	0·07	22	2·24
Shifted	85	1·74	99	2·19	115	1·75	65	1·25	200	1·75	164	1·34
Otherwise damaged	55	1·13	76	1·68	51	0·78	68	1·30	106	0·92	144	1·48
Salvage Services........	369	7·55	517	11.44	435	6·63	531	10·19	804	7·02	1,049	10·77
Lives—												
Crews saved	481	9·90	402	8·89	714	10·88	472	9·01	1,198	10·46	874	8·98
Crews drowned	46	0·94	23	0·51	64	0·97	26	0·51	110	0·96	50	0·51
Lives lost so far as reported (in both ships and steamers)........	650	—	971	—	880	—	844	—	1,530	—	1,815	—

Services, Crews Saved or Drowned and Lives Lost, so far as reported in "Lloyd's List," Average Number and Percentages for the same period of the Six Previous Years.

First Half-Year.				Second Half-Year.				Annual Total.				Steamers.
1872.		Six Years' Average.		1872.		Six Years' Average.		1872.		Six Years' Average.		
Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	
												Results to Ship—
79	8.25	53	9·47	117	9·29	70	10·09	196	8·84	123	9·81	Total loss
3	0·31	5	0·89	6	0·48	3	0·50	9	0·41	8	0·68	Constructive loss
38	3·97	49	8·78	69	5·48	69	9·94	107	4·83	118	9·43	Great damage
458	47·86	204	36·30	628	49·88	227	32·69	1,086	49·01	432	34·30	Minor damage
7	0·73	4	0·83	18	1·43	5	0·72	25	1·13	9	0·77	Raised after sinking
372	38·88	246	43·73	421	33·44	320	46·06	793	35·78	566	45·01	Not damaged or results unknown
957	—	563	—	1,259	—	695	—	2,216	—	1,258	—	Total
												Results to Cargo so far as reported—
38	3·97	20	3·67	47	3·73	23	3·38	85	3·84	44	3·51	All lost
46	4·81	25	4·46	57	4·53	28	4·00	103	4·65	53	4·21	Part lost
1	0·10	1	0·15	—	—	1	0·17	1	0·04	2	0·16	All saved
—	—	1	0·29	—	—	1	0·17	—	—	3	0·22	Forwarded
—	—	—	0·12	—	—	1	0·12	—	—	1	0·12	Heated
7	0·73	5	1·01	23	1·83	7	1·03	30	1·35	13	1·02	Shifted
18	1·88	14	2·51	16	1·27	17	2·49	34	1·53	31	2·50	Otherwise damaged
63	6·58	52	9·35	79	6·27	52	7·57	142	6·41	105	8·74	*Salvage Services*
												Lives—
46	4·81	21	3·87	54	4·29	18	2·59	100	4·51	42	3·34	Crews saved
6	0·62	—	0·09	7	0·56	—	—	13	0·59	—	—	Crews drowned
See	Sailing	Ves	sels.	—	—	—	—	—	—	—	—	Lives lost so far as reported (in both ships and steamers)

III.—*A Table showing the Number of Wrecks and Casualties to Sailing Vessels reported*
Compared with the Average Number and Percentages

Sailing Vessels.	First Quarter.				Second Quarter.			
	1872.		Six Years' Average.		1872.		Six Years' Average.	
	Number.	Per centage.	Number.	Per-centage.	Number.	Per-centage.	Number.	Per-centage.
1. *Missing*	31	1·03	25	0·76	19	0·87	31	1·90
2. *Abandoned*—								
Recovered	24	0·80	22	0·70	14	0·64	11	0·70
Lost	72	2·39	75	2·31	76	3·51	47	2·88
Total	96	3·19	98	3·01	90	4·15	59	3·58
3. *Collision*—								
Not damaged	123	4·09	120	3·70	87	4·02	80	4·88
Damaged	358	11·90	350	10·76	225	10·39	176	10·68
Sunk	27	0·89	45	1·39	37	1·71	27	1·65
Total	508	16·88	517	15·86	349	16·12	284	17·21
4. Sinking from causes other than collision	65	2·16	101	3·12	76	3·55	74	4·49
5. *Stranded*—								
Got off	396	13·16	420	12·91	294	13·58	271	16·39
Not got off	312	10·37	336	10·32	239	11·04	174	10·53
Subsequent fate not reported	27	0·89	119	3·66	28	1·29	49	2·99
Total	735	24·42	876	26·89	561	25·91	494	29·91
6. Capture	—	—	3	0·11	—	—	3	0·21
7. Piracy	—	—	1	0·05	—	—	1	0·07
8. Burnt or on fire	21	0·69	38	1·17	34	1·57	31	1·88
9. Dismasted or disabled	119	3·95	112	3·45	80	3·69	75	4·53
10. Jettison of cargo under deck	67	2·23	59	1·82	38	1·75	30	1·85
11. Jettison of deck load or washed overboard	37	1·23	35	1·08	31	1·43	21	1·31
12. Leaky	343	11·40	333	10·23	246	11·36	173	10·46
13. Loss of anchor or chains	124	4·12	229	7·03	31	1·43	41	2·51
15. Mutiny, sickness, casualty to crew or refusing duty	98	3·26	75	2·31	66	3·04	47	2·83
16. Ship damaged, loss of bulwarks, sails, &c.	762	25·32	747	22·92	542	25·03	280	16·96
17. Water-logged	3	0·10	6	0·19	2	0·09	5	0·29
Number of casualties	3,009	—	3,253	—	2,165	—	1,653	—
Number of vessels	2,814	—	2,971	—	2,073	—	1,552	—

in "Lloyd's List," during the Four Quarters of 1872, *and the respective Percentages thereon, for the same periods of the Six Previous Years.*

Third Quarter.				Fourth Quarter.				Sailing Vessels.
1872.		Six Years' Average.		1872.		Six Years' Average.		
Number.	Percentage.	Number.	Percentage.	Number.	Percentage.	Number.	Percentage.	
16	0·92	13	0·70	13	0·24	16	0·43	1. *Missing*
								2. *Abandoned*—
13	0·75	14	0·75	34	0·64	28	0·76	Recovered
43	2·49	38	1·98	179	3·37	86	2·35	Lost
56	3·24	52	2·73	213	4·01	114	3·11	Total
								3. *Collision*—
104	6·02	90	4·68	180	3·39	167	4·55	Not damaged
220	12·73	217	11·30	529	9·97	374	10·26	Damaged
20	1·15	30	1·59	62	1·17	48	1·31	Sunk
344	19·90	338	17·57	771	14·53	593	16·12	Total
49	2·83	81	4·25	122	2·30	112	3·05	4. Sinking from causes other than collision
								5. *Stranded*—
246	14·23	266	13·84	612	11·53	449	12·20	Got off
186	10·77	214	11·14	655	12·35	464	12·62	Not got off
17	0·98	54	2·84	123	2·32	146	3·98	Subsequent fate not reported
449	25·98	535	27·82	1,390	26·20	1,059	28·80	Total
—	—	6	0·32	—	—	9	0·25	6. Capture
1	0·06	2	0·11	—	—	1	0·02	7. Piracy
21	1·21	41	2·15	46	0·87	42	1·15	8. Burnt or on fire
76	4·40	104	5·44	238	4·48	186	5·06	9. Dismasted or disabled
23	1·33	31	1·62	67	1·26	62	1·69	10. Jettison of cargo under deck
11	0·64	22	1·14	168	3·17	66	1·80	11. Jettison of deckload or washed overboard
235	13·60	249	12·97	582	10·97	374	10·18	12. Leaky
41	2·37	54	2·83	284	5·35	215	5·84	13. Loss of anchor or chains
48	2·78	59	2·55	89	1·68	67	1·84	15. Mutiny, sickness, casualty to crew or refusing duty
356	20·60	335	17·44	1,307	24·64	749	20·37	16. Ship damaged, loss of bulwarks, sails, &c.
2	0·12	7	0·36	15	0·28	10	0·27	17. Water-logged
1,728	—	1,921	—	5,305	—	3,679	—	Number of casualties
1,658	—	1,810	—	4,906	—	3,404	—	Number of vessels

IV.—*A Table showing the Number of Wrecks and Casualties to Steamers reported in*
Compared with the Average Number and Percentages

Steamers.	First Quarter.				Second Quarter.			
	1872.		Six Years' Average.		1872.		Six Years' Average.	
	Number.	Per-centage.	Number.	Per-centage.	Number.	Per-centage.	Number.	Per-centage.
1. *Missing*	3	0·57	2	0·76	1	0·22	1	0·63
2. *Abandoned*—								
Recovered	—	—	—	—	—	—	—	—
Lost	3	0·57	1	0·43	1	0·22	—	—
Total	3	0·57	2	0·52	1	0·22	—	—
3. *Collision*—								
Not damaged	81	15·43	52	15·01	68	14·64	40	17·00
Damaged	69	13·14	42	12·14	47	10·10	33	14·01
Sunk	8	1·53	5	1·53	3	0·64	4	1·81
Total	158	30·10	100	28·68	118	25·38	78	32·82
4. Sinking from causes other than collision	7	1·33	10	2·82	11	2·36	5	2·37
5. *Stranded*—								
Got off	93	17·71	59	17·06	110	23·65	55	23·00
Not got off	18	3·43	15	4·35	20	4·30	11	4·53
Subsequent fate not reported	8	1·53	10	2·87	1	0·22	4	1·88
Total	119	22·67	84	24·28	131	28·17	70	29·41
6. Capture	—	—	—	—	—	—	—	—
7. Piracy	—	—	—	—	1	0·22	—	—
8. Burnt or on fire	16	3·05	6	1·86	17	3·65	9	3·90
9. Dismasted or disabled	3	0·57	4	1·15	4	0·86	1	0·56
10. Jettison of cargo under deck	9	1·71	4	1·24	7	1·50	4	1·60
11. Jettison of deckload or washed overboard	6	1·14	5	1·63	1	0·22	1	0·56
12. Leaky	10	1·90	10	2·96	14	3·01	8	3·55
13. Loss of anchor or chains	3	0·57	8	2·34	1	0·22	1	0·48
14. Machinery damaged or short of coals	131	24·95	66	18·98	114	24·51	42	17·63
15. Mutiny, sickness, casualty to crew, or refusing duty	5	0·95	4	1·24	11	2·37	3	1·46
16. Ship damaged, loss of bulwarks, chains, &c.	52	9·90	40	11·47	33	7·09	10	4·46
17. Water-logged	—	—	—	—	—	—	—	—
Number of casualties	525	—	348	—	465	—	239	—
Number of steamers	514	—	333	—	443	—	230	—

"Lloyd's List" during the Four Quarters of 1872, *and the respective Percentages thereon, for the same periods of the Six Previous Years.*

Third Quarter.				Fourth Quarter.				Steamers.
1872.		Six Years' Average.		1872.		Six Years' Average.		
Number.	Per-centage.	Number.	Per-centage.	Number.	Per-centage.	Number.	Per-centage.	
—	—	—	—	4	0·48	1	0·34	1. *Missing*
								2. *Abandoned*—
—	—	—	—	—	—	—	—	Recovered
—	—	—	—	6	0·72	—	—	Lost
—	—	—	—	6	0·72	—	—	Total
								3. *Collision*—
67	14·63	57	20·36	118	14·08	82	18·71	Not damaged
57	12·44	45	15·48	115	13·72	55	12·61	Damaged
8	1·75	7	2·41	14	1·67	7	1·60	Sunk
132	28·82	108	38·25	247	29·47	144	32·92	Total
9	1·96	7	2·47	26	3·10	12	2·78	4. Sinking from causes other than collision
								5. *Stranded*—
97	21·18	57	20·19	156	18·62	85	19·48	Got off
24	5·24	13	4·59	47	5·61	21	4·95	Not got off
2	0·44	2	0·94	7	0·83	7	1·60	Subsequent fate not reported
123	26·86	73	25·72	210	25·06	114	26·03	Total
—	—	—	—	—	—	—	—	6. Capture
—	—	—	—	—	—	—	—	7. Piracy
7	1·53	11	4·00	19	2·27	9	2·21	8. Burnt or on fire
2	0·44	2	0·94	7	0·83	7	1·75	9. Dismasted or disabled
7	1·53	3	1·24	5	0·60	4	0·99	10. Jettison of cargo under deck
—	—	1	0·53	23	2·74	5	1·14	11. Jettison of deckload or washed overboard
9	1·96	5	1·35	16	1·91	11	2·52	12. Leaky
2	0·44	1	0·35	11	1·31	5	1·11	13. Loss of anchor or chains
143	31·22	52	18·48	157	18·73	73	16·69	14. Machinery damaged or short of coals
9	1·96	4	1·35	4	0·48	5	0·84	15. Mutiny, sickness, casualty to crew, or refusing duty
15	3·28	11	4·12	103	12·29	44	10·21	16. Ship damaged, loss of bulwarks, chains, &c.
—	—	—	—	—	—	—	—	17. Water-logged
458	—	283	—	838	—	437	—	Number of casualties
436	—	275	—	823	—	420	—	Number of steamers

V.—*A Table showing the Results of Wrecks and Casualties to Ship and to Cargo, with* *List" during the Four Quarters of* 1872, *and the respective Percentages thereon, Compared*

	Sailing Vessels.							
	First Quarter.				Second Quarter.			
	1872.		Six Years' Average.		1872.		Six Years' Average.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Results to Ship—								
Total loss	480	17·06	563	18·97	431	20·79	340	21·95
Constructive loss	30	1·06	61	2·07	11	0·53	43	2·76
Great damage	208	7·39	344	11·59	113	5·45	172	11·07
Minor damage	1,538	54·65	1,388	46·72	1,095	52·82	599	38·62
Raised after sinking	10	0·35	10	0·36	15	0·72	6	0·42
Not damaged or results unknown	548	19·47	603	20·29	408	19·68	391	25·18
Total	2,814	—	2,971	—	2,073	—	1,552	—
Results to Cargo so far as reported—								
All lost	278	9·88	351	11·81	192	9·26	188	12·16
Part lost	152	5·40	165	5·46	120	5·79	92	5·96
All saved	4	0·14	16	0·54	5	0·24	6	0·43
Forwarded	2	0·07	12	0·40	1	0·05	8	0·52
Heated	—	—	8	0·27	1	0·05	3	0·23
Shifted	49	1·74	49	1·64	36	1·73	17	1·09
Otherwise damaged	28	0·99	49	1·67	27	1·30	16	1·68
Salvage services	230	8·17	360	12·12	139	6·70	157	10·15
Lives—								
Crews saved	280	9·95	258	8·71	204	9·84	143	9·24
Crews drowned	22	0·78	16	0·56	24	1·15	6	0·42
Lives lost so far as reported in both ships and steamers	280	—	433	—	370	—	363	—

Salvage Services, Crews Saved or Drowned and Lives Lost, so far as reported in " Lloyd's
with the Average Number and Percentages for the same periods of the Six Previous Years.

Sailing Vessels.								
Third Quarter.				Fourth Quarter.				
1872.		Six Years' Average.		1872.		Six Years' Average.		
Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	
								Results to Ship—
299	18·03	375	20·75	999	20·36	718	21·11	Total loss
19	1·14	47	2·62	43	0·88	51	1·50	Constructive loss
144	8·68	224	12·36	439	8·95	443	13·01	Great damage
828	49·94	735	40·64	2,581	52·61	1,432	42·06	Minor damage
7	0·42	6	0·35	13	0·26	5	0·15	Raised after sinking
361	21·77	421	23·27	831	16·94	755	22·17	Not damaged or results unknown
1,658	—	1,810	—	4,906	—	3,404	—	Total
								Results to Cargo so far as reported—
144	8·68	188	10·39	451	9·19	366	10·76	All lost
67	4·04	96	5·34	306	6·24	184	5·40	Part lost
2	0·12	6	0·36	16	0·33	9	0·26	All saved
1	0·06	5	0·30	2	0·04	5	0·14	Forwarded
2	0·12	4	0·26	5	0·10	5	0·17	Heated
23	1·39	15	0·85	92	1·87	49	1·46	Shifted
17	1·02	32	1·77	34	0·69	36	1·06	Otherwise damaged
114	6·88	175	9·68	321	6·54	356	10·46	Salvage services
								Lives—
156	9·40	164	9·06	558	11·37	308	9·06	Crews saved
18	1·09	5	0·27	46	0·94	50	0·64	Crews drowned
232	—	304	—	648	—	690	—	Lives lost so far as reported in both ships and steamers

V.—*A Table showing the Results of Wrecks and Casualties to Ship and to Cargo,*

	Steamers.							
	First Quarter.				Second Quarter.			
	1872.		Six Years' Average.		1872.		Six Years' Average.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Results to Ship—								
Total loss	42	8·17	33	9·91	37	8·35	20	8·83
Constructive loss	2	0·39	3	0·95	1	0·23	2	0·79
Great damage	27	5·25	27	8·16	11	2·48	22	9·70
Minor damage	240	46·69	126	37·99	218	49·21	78	33·88
Raised after sinking	3	0·58	2	0·75	4	0·90	2	0·94
Not damaged or results unknown	200	38·91	140	42·24	172	38·82	105	45·83
Total	514	—	333	—	443	—	230	—
Results to Cargo so far as reported—								
All lost	23	4·47	13	4·00	15	3·38	7	3·18
Part lost	25	4·86	13	3·90	21	4·74	12	5·28
All saved	1	0·19	—	—	—	—	—	—
Forwarded	—	—	1	0·35	—	—	—	—
Heated	—	—	—	—	—	—	—	—
Shifted	4	0·78	5	1·45	3	0·67	1	0·36
Otherwise damaged	12	2·33	9	2·70	6	1·35	5	2·24
Salvage service	29	5·63	28	8·36	34	7·67	25	10·78
Lives—								
Crews saved	21	4·08	13	3·95	25	5·66	8	3·76
Crews drowned	5	0·97	—	—	1	0·23	—	—
Lives lost so far as reported in both ships and steamers (see Sailing Vessels, *supra*)	—	—	—	—	—	—	—	—

with Salvage Services, Crews Saved or Drowned and Lives Lost—Contd.

Steamers.								
Third Quarter.				Fourth Quarter.				
1872.		Six Years' Average.		1872.		Six Years' Average.		
Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	
								Results to Ship—
36	8·26	27	9·75	81	9·84	43	10·31	Total loss
4	0·91	1	0·54	2	0·24	2	0·48	Constructive loss
32	7·34	28	10·18	37	4·50	41	9·79	Great damage
205	47·02	92	33·56	423	51·40	135	32·12	Minor damage
4	0·91	2	0·91	14	1·70	2	0·59	Raised after sinking
155	35·56	124	45·06	266	32·32	196	46·71	Not damaged or results unknown
436	—	275	—	823	—	420	—	Total
								Results to Cargo so far as reported—
14	3·21	9	3·39	33	4·01	12	2·81	All lost
19	4·36	10	3·69	38	4·62	17	4·20	Part lost
—	—	—	—	—	—	1	0·20	All saved
—	—	—	—	—	—	—	—	Forwarded
—	—	—	—	—	—	—	—	Heated
1	0·23	1	0·54	22	2·67	5	1·34	Shifted
4	0·91	7	2·54	12	1·46	10	2·46	Otherwise damaged
28	6·42	21	7·93	51	6·20	34	8·13	Salvage service
								Lives—
21	4·82	8	2·91	33	4·01	12	2·89	Crews saved
—	—	—	—	7	0·85	—	—	Crews drowned
—	—	—	—	—	—	—	—	Lives lost so far as reported in both ships and steamers (see Sailing Vessels, *supra*)

VI.—*English Railways in* 1873.

The following are extracts from the report of Captain Tyler to the Board of Trade in regard to the capital, traffic, working expenditure, and profits of English railways in 1873:—

"*Railway Extension.*

"The total length of railway open for passenger traffic on the 31st December, 1873, was, as returned by the railway companies, 16,082 miles, of which 8,687 miles were laid with two or more lines, and 7,395 miles with single lines of rails. They were distributed as follows:—In England, 11,369 miles; in Scotland, 2,612 miles; in Ireland, 2,101 miles. There was an increase of 268 miles between the 31st December, 1872, and the 31st December, 1873, according to the figures compiled in both years from the returns of the railway companies, namely, from 15,814 miles to 16,082 miles, or at the rate of 1·69 per cent. This increase was made up as follows:—From 11,136 miles to 11,369 miles, or 2·09 per cent., in England; from 2,587 miles to 2,612 miles, or nearly 1 per cent., in Scotland; and from 2,091 miles to 2,101 miles, or 0·5 per cent., in Ireland. But the railway system is far from complete, in regard either to mileage or to improvements on existing lines. As the traffic increases new portions of line become necessary in certain localities for the conveyance of passenger or fast traffic, independently of goods or slow traffic. Many districts still without railways are in want of branch lines. Partially to supply these wants, the aggregate length of railways authorised by Parliament during the years 1870, 1871, 1872, and 1873, and not yet constructed, alone amounts to more than 1,800 miles.

"*Capital.*

"The total capital raised by shares, stocks, and loans amounted on the 31st December, 1871, to 552,682,107*l.*, on the 31st December, 1872, to 569,047,346*l.*, and on the 31st December, 1873, to 588,320,308*l.*, showing an increase of 19,272,962*l.* raised during 1873. The average expenditure per mile of railway open, which was 34,099*l.* at the end of 1858, had increased to 34,106*l.* at the end of 1870, to 35,944*l.* at the end of 1871, to 35,984*l.* at the end of 1872, and still further to 36,574*l.* at the end of 1873. It must be understood that although the more recent lines have (if the metropolitan lines are excepted) in most cases been constructed at a lower rate of cost per mile than the older lines, yet the expenditure necessary to provide for working safely, efficiently, and economically the ever increasing traffic on the older lines still continues to augment the rate of cost on the total mileage. And the same result must be expected from year to year as long as the traffic of the country continues to increase in the same ratio. But the capital has thus increased in very different proportions as regards the various descriptions of stocks and loans. Whilst the increase in ordinary shares for the year 1871 over the year 1870 was rather under a million, or only 0·42 per cent., the increase in ordinary shares for the year 1872 over the year 1871 was nearly 9 millions, or nearly 3·8 per cent., and the increase in ordinary shares for the year 1873 was nearly 5½ millions, viz., from 239,039,089*l.* to 244,449,805*l.*, or 2·26 per cent. The increase in guaranteed and preference stocks or shares was from 173,051,875*l.* at the end of 1871 to 177,764,674*l.*, or 2·7 per cent., at the end of 1872, and to 188,127,069*l.*, or 5·8 per cent. at the end of 1873. The increase also in loans and debenture stocks was from 149,378,080*l.* in 1871 to

152,205,728*l*., or 1·9 per cent. in 1872, and to 155,743,434*l*., or 2·32 per cent., in 1873. But the debenture stocks increased at the rate of 28 per cent. in 1872 and 16 per cent. in 1873, viz., from 67,282,535*l*. in 1871, to 85,981,511*l*. in 1872, and to 99,855,120*l*. in 1873; whilst the terminable loans decreased at the rate of 19 per cent. in 1872, and 18 per cent. in 1873, viz., from 82,095,545*l*. in 1871, to 66,224,217*l*. in 1872, and to 55,888,314*l*. in 1873. The process of converting terminable debentures into debenture stocks, which was some years since proved to be so necessary, has thus been continued.

"During the year 1873 no interest was paid upon 7,528,197*l*. of preference stock, apparently from a want of sufficient profit in working; but this was an improvement on 1872, in which year the proprietors of 9,207,357*l*. of preference stocks received no dividends. The holders of 49,100*l*. of loans and of 742,366*l*. of debenture stock were also without interest in 1873. This was an improvement on 1872 as regards loans, but not as regards debenture stock. In that year the holders of 59,200*l*. of loans and 594,587*l*. of debenture stock were without interest. No interest was paid upon 37,613,716*l*. of ordinary stock in 1873, which was a falling off as compared with 1872. In that year the proprietors of 32,901,496*l*. of ordinary stock received no interest. But it must be remembered that the difference between the nominal value of many of these stocks and loans and the amounts actually received by the companies for them is, in consequence of the mode in which the money has been raised, very considerable.

"*Rates of Interest.*

"The average rate of interest paid on ordinary capital in 1873 was 4·99 per cent., against 5·14 per cent. for 1872, and 5·07 per cent. for 1871, showing a decrease for 1873 of 0·15 per cent. below 1872, and 0·08 per cent. below 1871; whilst on preferential and loan capital the average interest paid was 4·39 per cent., the same for 1873 as for 1872, against 4·42 per cent. for 1871. The average interest on debenture loans decreased from 4·37 per cent. in 1870, to 4·25 per cent. in 1871, and to 4·19 per cent. in 1872, but increased to 4·21 per cent. in 1873; and that on debenture stock decreased from 4·47 per cent. in 1870, to 4·37 per cent. in 1871, 4·34 per cent. in 1872, and 4·33 per cent. in 1873. The 4·54 per cent. of interest paid on 158,692,084*l*. of guaranteed and preference stock in 1870 decreased continuously to 4·51 per cent. on 173,051,875*l*. in 1871, to 4·49 per cent. on 177,764,674*l*. for 1872, and to 4·48 per cent. on 188,127,069*l*. in 1873.

"The average interest paid on the *total* capital increased from 3·75 per cent. for 1858, to 4·19 per cent. for 1870, to 4·43 per cent. for 1871, and to 4·51 per cent. for 1872, but decreased to 4·35 per cent. for 1873; whilst the average interest on preferential and loan capital taken together decreased from 4·63 per cent. for 1858, to 4·48 per cent. for 1870, to 4·42 per cent. for 1871, and to 4·39 per cent. for both 1872 and 1873.

"The above facts are interesting as showing at a glance the net results of railway working in the United Kingdom for the four years. It will be observed that the interest on the total capital expended exceeded the interest on the loans, debenture stock, and preferential capital taken together, by 0·25 per cent., or in the proportion of 4·64 to 4·39, for 1873; whilst the interest on the ordinary share capital, which (including the portion on which no dividend was paid) averaged 4·99 per cent., exceeded the fixed interest on stocks and loans preferred to it, which (including also those which received no cash payment) averaged 4·39 per cent., by 0·60 per cent.

"*Proportions of Capital in relation to Rates (or absence) of Interest.*

"Of the ordinary share capital, amounting to nearly 244½ millions, more than 37½ millions, as above stated, or 4½ millions more than in the previous year, received no dividend at all.

"Of the remaining 207 millions in round numbers:—

9½	millions	received dividends	of less than 1 per cent.			
1	million	,,	from 1	to a fraction under	2	per cent.
15	millions	,,	2	,,	3	,,
19	,,	,,	3	,,	4	,,
19	,,	,,	4	,,	5	,,
22½	,,	,,	5	,,	6	,,
39	,,	,,	6	,,	7	,,
55	,,	,,	7	,,	8	,,
2½	,,	,,	8	,,	9	,,
19	,,	,,	9	and	9½ per cent.	
½	million	,,	10	,,	10	,,
4½	millions	,,	from 11 to 13 per cent.			

"There is, however, included in the above upwards of 15 millions of capital of companies whose lines are under lease, or of capital which receives fixed rates of interest. Although this amount of 15 millions was subscribed, and has been returned as ordinary capital of companies whose lines are thus leased, it might perhaps more properly be considered as guaranteed capital of the leasing companies. The rates of interest on these 15 millions are not, however, generally high, excepting in one case in which nearly 2½ millions received 12 per cent. of interest.

"Of the 37½ millions of ordinary share capital on which no dividend was paid, 28 millions belonged to English companies, 6½ millions to Scotch companies, and nearly 3 millions to Irish companies. The total ordinary capital at the end of 1873 of the English companies was nearly 206 millions, of the Scotch companies nearly 23 millions, and of the Irish companies rather more than 15½ millions.

"Of the capital returned as guaranteed, amounting to rather more than 66 millions:—

Nearly	2¼	millions received dividends	of 2½ or less per cent.			
,,	1½	,,	from 3	to	3½	,,
,,	20½	,,	4	,,	4¾	,,
,,	30½	,,	5	,,	5½	,,
,,	9½	,,	6	,,	6⅗	,,
About	1½	,,	of 7	to	13	,,

"Of the capital returned otherwise as bearing preferential interest, amounting to nearly 122 millions, rather more than 7½ millions received no dividends at all:—

About	7½	millions	received dividends	from ¼	to	1¾	per cent.
,,	3½	,,	,,	2	,,	3¾	,,
,,	16	,,	,,	4	,,	4¼	,,
,,	21½	,,	,,	4½	,,	4⅞	,,
Nearly	60	,,	,,	5 per cent.			
,,	¾	million	,,	5½	,,		
About	3	millions	,,	6 to 6½ per cent.			
,,	1½	,,	,,	7 per cent.			
,,	½	million	,,	8 to 12 per cent.			

“ Of the loans amounting to 56 millions :—

Upwards of	1½ millions	received interest at rates under	4 per cent.
About........	29	”	4 per cent.
”	12½	”	4¼ ”
”	7½	”	4½ to 4¾ per cent.
”	5	”	5 per cent.
Nearly	½ million	”	6 ”

“ Of the debenture stocks amounting to nearly 100 millions, nearly three quarters of a million received no interest :—

About	287,000*l.*	received less than	3½ per cent.
”	55	millions received	4 to 4¼ per cent.
”	22½	”	4½ per cent.
”	18½	”	5 ”
”	2⅓	”	6 or more per cent.

“ *Revenue.*

“ Under this head are omitted on the one side the receipts from navigations, steamboats, tolls, rents, &c., and on the other side the expenses connected with steamboats, harbours, and canals, &c. It appears that the total receipts from railway working amounted to 55,675,421*l.* on 16,082 miles for 1873, against 51,304,114*l.* on 15,814 miles for 1872, and against 47,107,558*l.* on the supposed 15,376 miles (which may more properly be stated as 15,611 miles) for 1871; whilst the total expenses of railway working were 30,060,112*l.* for 1873, against 25,652,753*l.* for 1872, and against 22,632,046*l.* for 1871. The proportion of working expenses to gross receipts was, therefore, 54·0 per cent. for 1873, against 50·0 per cent. for 1872, and against 48·4 per cent. for 1871; and the percentage of net receipts to total capital decreased, as already explained, from 4·43 for 1871, and 4·51 for 1872, to 4·35 for 1873.

“ The proportion per cent. of expenditure to receipts increased—as between 1870, 1871, 1872, and 1873—from 52 in 1870, and 53 in 1871 and 1872, to 56 in 1873, in Ireland;—from 50 in 1870 and 1871, and 51 in 1872, to 57 in 1873, in Scotland;—and from 48 in 1870, 47 in 1871, and 49 in 1872, to 53 in 1873, in England.

“ The total receipts from passenger trains increased from 20,622,580*l.* for 1871 and 22,287,555*l.* for 1872, to 23,853,892*l.* for 1873; whilst the total receipts from goods trains increased from 26,484,978*l.* for 1871, and 29,016,559*l.* for 1872, to 31,821,529*l.* for 1873.

“ The percentage of receipts from passenger and goods traffic for the United Kingdom, which was in 1858 as 49 from passengers to 51 from goods, and which remained in 1872 the same as in 1870 and 1871, namely, as 44 from passengers to 56 from goods, became in 1873 as 43 from passengers to 57 from goods. But it was very different in the three kingdoms. In England the percentage proportions of receipts from passengers and goods were nearly the same for the five years named as in the three kingdoms combined. In Scotland those proportions decreased from 41 in 1858 to 37 in 1873 for passengers, and increased from 59 in 1858 to 63 in 1873 for goods. In Ireland they decreased from 66 in 1858 to 55 in 1873 for passengers, and increased from 34 in 1858 to 45 in 1873 for goods.

"*Passenger Receipts.*

"I had occasion to point out in my general reports for 1870, 1871, and 1872 that the most important feature in regard to the receipts from passenger trains was the increase of third-class passengers. This is again found to be the case, though not in so great a ratio; and there is at the same time a decrease for the last two years in second-class passengers. Whilst the receipts from first-class passengers increased from 3,948,812*l.* in 1870, to 4,148,108*l.* in 1871, to 4,319,185*l.* in 1872, and to 4,373,274*l.* in 1873; and whilst those for second-class passengers increased from 4,925,542*l.* in 1870, to 5,167,535*l.* in 1871, they decreased to 4,198,201*l.* for 1872, and again to 3,984,718*l.* for 1873; it is noticeable that those from third-class passengers increased from 7,473,727*l.* in 1870, to 8,115,304*l.* in 1871, to 10,318,761*l.* in 1872, and to 11,750,588*l.* in 1873. The figures showing the numbers of passenger journeys by passengers of different classes give similar important results with reference to the decrease of second-class and the increase of third-class passengers. Whilst the numbers of first-class passenger journeys increased from 31,839,091 in 1870, to 35,642,199 in 1871, to 37,678,538 in 1872, and to 38,310,754 in 1873; and whilst the second-class passenger journeys increased from 74,153,113 in 1870, to 81,021,940 in 1871, and decreased, respectively, to 72,459,562 in 1872, and 70,327,428 in 1873; the passenger journeys of the third-class increased from 224,012,194 in 1870, to 258,556,615 in 1871, to 312,736,722 in 1872, and to 346,682,006 in 1873.

"During a portion of 1872 and during 1873 the experiment of conveying third-class passengers in fast trains, initiated by the Midland Railway Company, and carried out in a great measure by the other principal railway companies, who felt compelled more or less to adopt a similar course, has now been more fully tried. The results of that experiment, not only upon the third-class traffic, but also upon the traffic of the other classes, are apparent, so far, from the figures above quoted. Different companies have no doubt been affected by it in different degrees; and it is a question how far the increase in the numbers and receipts from third-class passengers is altogether due to the greater facilities for fast travelling thus conferred upon them. Other causes which may be considered to have been in operation, with reference to the agricultural, manufacturing, and commercial prosperity of the country during the periods referred to, must also be borne in mind; but the general results of the experiment must be considered to be the desertion to a considerable extent of second-class for third-class carriages. The continued increase of first-class traffic tends to the conviction that passengers desiring or requiring first-class accommodation do not object to the existing first-class fares. The decrease of second-class traffic indicates that the fares are too high for the advantages or accommodation afforded, relatively to the other classes, and consequently that the second-class fares might advantageously be reduced. The increase in the third-class traffic is encouraging, as showing still further than in former years the elasticity and importance of that traffic. On the other hand, the experiment of conveying third-class passengers by fast non-stopping trains, as partially adopted, does not seem to have been entirely satisfactory, either to the railway companies generally, or to the passengers of higher classes travelling by express trains, as leading, where duplicate trains have not been run, to overcrowding, unpunctuality, or other inconveniences.

"It should here be noticed, also, that the numbers of season-ticket holders have increased from 156,403 in 1870, to 188,392 in 1871, to 272,342 in 1872, and to 314,579 in 1873; the money receipts from that source having increased from 686,488*l.* in 1870, to 781,778*l.* in 1871, to 892,384*l.* in 1872, and to 978,967*l.* in 1873; and further, that the receipts from luggage, parcels, carriages, horses, dogs, extra fares, and such miscellaneous sources of traffic by passenger trains have increased in the same periods from 2,262,669*l.* in 1870, to 2,406,002*l.* in 1871, to 2,553,595*l.* in 1872, and to 2,764,020*l.* in 1873.

"*Goods Receipts.*

"Goods receipts, as distinguished from receipts from passenger traffic, are taken to include monies received for the conveyance of minerals, general merchandise, live-stock, and all traffic by goods trains. But it must be remembered, in regard to these and other figures, that on some lines the greater portion of the traffic, and on other lines smaller portions of the traffic are carried in mixed trains; and that whilst the receipts of goods and passenger trains are supposed to be kept separately, no attempt is made to separate tbe expenses of goods and passenger trains from one another. The total receipts from goods trains have increased from 24,115,159*l.* in 1870, to 26,484,978*l.* in 1871, to 29,016,559*l.* in 1872, and to 31,821,529*l.* in 1873, or at the rate of about 10 per cent. for each year over each previous year; and of these, the receipts from the conveyance of minerals have increased from 9,392,513*l.* in 1870, to 10,029,253*l.* in 1871, to 11,226,157*l.* in 1872, and to 12,605,462*l.* in 1873; whilst those from the conveyance of general merchandise have increased from 13,810,196*l.* in 1870, to 15,418,171*l.* in 1871 to 16,687,830*l.* in 1872, and to 18,047,756*l.* in 1873; and those from the conveyance of live-stock have increased from 912,450*l.* in 1870, to 1,037,554*l.* in 1871, to 1,077,867*l.* in 1872, and to 1,144,760*l.* in 1873. In considering the relative importance of those branches of traffic it may be pointed out that the general merchandise receipts were for the year 1871 about fifteen times, and for the years 1872 and 1873 between fifteen and sixteen times the live-stock receipts, whilst the mineral receipts increased from ten to eleven times the live-stock receipts.

"*Train-Mileage Receipts and Expenses.*

"The total numbers of miles run by trains during the year 1873 was 197,354,749 against 190,720,719 during 1872, showing an increase of 6,634,030 miles,—or, say, 3½ per cent.—which was rather more than half the increase of 1872 over 1871. The receipts per train-mile, which were 61·63*d.* for 1870, 63·13*d.* for 1871, and 64·56*d.* for 1872, increased to 67·71*d.* for 1873; whilst the working expenses per train-mile, which were 30·02*d.* for 1870, 30·33*d.* for 1871, and 32·27*d.* for 1872, increased to 36·57*d.* for 1873. Analysing these train-mileage receipts and expenses as regards the three kingdoms, it would appear that the increase in train-mileage receipts, as between 1870, 1871, 1872, and 1873 respectively, has been. in England, from 63·64*d.* and 64·93*d.* and 66·21*d.* to 69·48*d.*; in Scotland, from 51·69*d.* and 52·58*d.* and 54·81*d.* to 57·58*d.*; and in Ireland from 60·36*d.* and 61·73*d.* and 62·02*d.* to 64·31*d.*; whilst the increase in train-mileage expenses at the same time has been, in England, from 30·68*d.* and 30·81*d.* and 32·83*d.* to 37·18*d.*; in Scotland, from 25·86*d.* and 26·22*d.* and 28·33*d.* to 32·61*d.*; and in Ireland, from 31·54*d.* and 32·66*d.* and 33·30*d.* to 35·85*d.*

"It will be seen from these figures that the receipts and the expenses per train-mile have both increased continuously in England, Scotland, and Ireland from year to year since 1870; but that the train-mileage receipts have not, owing to the cost of fuel, labour, and materials, increased in the same proportion as the train-mileage expenses for the year 1873.

" The details of the expenses per train-mile for the United Kingdom for the four years 1870-73 were as follows:—

	1873.	1872.	1871.	1870.
	d.	*d.*	*d.*	*d.*
Way and works	7·15	6·13	5·98	5·89
Locomotive charges	11·09	8·99	7·96	7·92
Rolling stock (other than locomotive) charges	2·90	2·70	2·65	2·63
Traffic expenses	10·25	9·53	8·92	8·64
General charges	1·37	1·35	1·28	1·35
Rates and taxes	1·31	1·29	1·28	1·32
Government duty (England and Scotland only)	0·62	0·63	0·69	0·72
Compensation for personal injury	0·44	0·38	0·42	0·45
Compensation for damage to goods	0·28	0·23	0·19	0·17
Legal and parliamentary expenses	0·48	0·38	0·33	0·35
Miscellaneous	0·63	0·66	0·63	0·58
Total	36·57	32·27	30·33	30·02

" The total cost per train-mile was, then, 36·57*d.* for 1873, against 32·27*d.* for 1872, 30·33*d.* for 1871, and 30·02*d.* for 1870. But these figures will be found to vary very considerably on the lines of different companies. There can be no greater fallacy than to expect similar results in this respect from lines in various localities, worked under different conditions and circumstances. At the same time it is difficult to account for the excessive variations that are observable. For instance, the total expenditure per train-mile varied in 1873 from 32·22*d.* for the Great Western Railway to 40·46*d.* for the Lancashire and Yorkshire Railway; the charges for the maintenance of way and works varied from 5·55*d.* for the Caledonian to 10·96*d.* for the Great Southern and Western (of Ireland) Railway; the total charges for locomotive and rolling stock varied from 12·13*d.* for the Great Western to 18·38*d.* for the North Eastern Railway; the traffic expenses and general charges varied from 8·80*d.* for the Dublin and Drogheda to 16·60*d.* for the Lancashire and Yorkshire Railway; and the rates, taxes, and Government duty varied from 1·39*d.* for the Caledonian to 3·78*d.* for the London, Brighton, and South Coast Railway.

" *Net Profit per Train Mile.*

" Inasmuch as the expenditure per train-mile increased from 30·02*d.* in 1870, to 30·33*d.* in 1871, to 32·27*d.* in 1872, and to 36·57*d.* in 1873; and the receipts per train-mile increased from 61·63*d.* in 1870, to 63·13*d.* in 1871, to 64·56*d.* in 1872, and 67·71*d.* in 1873,—the net profit per train-mile on railway-working, which increased from 31·61*d.* in 1870 to 32·8*d.* in 1871, decreased to 32·29*d.* in 1872, and to 31·14*d.* in 1873.

" *Summary.*

" The leading features of the railway system of the United Kingdom at the end of 1873 are, then, as follows:—A total sum of 588,320,308*l.* has been expended on 16,082 miles of railway, of which 8,687 were laid with two or more lines of rails, and 7,395 were single lines, at a cost of more than 36,500*l.* a-mile. There were 11,435 locomotive engines, or about one to every mile and a-half; and 362,785 vehicles, or about 22½ per mile, besides great numbers of waggons belonging to traders and companies other than railway companies. By the running of trains over 197,354,749 miles, 55,675,421*l.* were received during the year, of which 30,060,112*l.* were expended in working and maintenance, and 25,615,309*l.* remained as net profit; so that 54 per cent. of the gross receipts were expended in earning them. There were 455,320,188 passenger journeys, besides the journeys of 314,579 season-ticket holders; and 190,953,457 tons of goods and minerals were conveyed. The average rate of dividend on ordinary capital was 4·99 per cent., and on the total capital 4·64 per cent., including 46,088,589*l.* of capital which received no interest or dividend. The average cost of working each train was 36·57*d.* per mile, and the average receipt from each train was 67·71*d.* per mile; so that the average net profit from each train was 31·14*d.* per mile; whilst the total cost of working was 1,866*l.* per open mile, 3,462*l.* per open mile were received, and the net profit was 1,596*l.* per open mile.

"The more prominent facts connected with traffic-working in 1873, as compared with 1872, were as follows:—There was an increase of gross receipts amounting to 4,371,307*l.*, but also an increase of working expenses amounting to 4,407,359*l.* Whilst there was an increase of about 54,089*l.* in the receipts from first-class, and of 1,431,827*l.* from third-class passengers, there was a decrease of 213,483*l.* from second-class passengers. And whilst there was an increase of 632,216 in the numbers of first-class, and of 33,945,284 in the numbers of third-class passenger journeys, there was a decrease of 2,132,134 in the numbers of second-class passenger journeys. There was an increase in the receipts from goods, minerals, &c., of 2,804,970*l.* In looking at the details above given of the expenses per train-mile, it will be observed that whilst the increase is continuous from 1870 to 1871, and 1872, it is much greater for 1873. The increased cost of way and works was from 1872 to 1873 rather more than a penny a train-mile, but that for locomotive charges was more than two-pence per train-mile; and this extra charge, occasioned principally by the enhanced price of fuel, accounts for more than half of the total increase in the cost of working—from 32·27 pence in 1872 to 36·57 pence in 1873 per train-mile.

"The working of 1874 has therefore presented satisfactory results of further increased receipts, but less satisfactory figures as regards the expenses; but it is hardly probable that the latter will continue to increase in 1874 in the same ratio. The prices of wages, fuel, and materials were in 1873 much above the average. There will, no doubt, be fluctuations in the future as there have been in the past. But, upon the whole, and comparing longer than annual periods, the progress of the country as shown by its railway traffic is extraordinary. The gross receipts of the railways have increased from 23,956,749*l.* in 1858 to 55,675,421*l.* in 1873; or have been considerably more than doubled in fifteen years. There seems no reason why they should not in another series of years continue to manifest, if not equal, at least further important progress. The companies will be able, as their credit improves and their ordinary dividends increase, to raise money at still cheaper rates. The additional outlay yet required for further accommodation and improved apparatus, though large in total amount, will be merely fractional as regards the total capital; and will afford the means of inducing and conveying increased traffic, of saving in payments by way of compensation, and of effecting greater economy in working; so that it will, on the whole, be beneficial in a pecuniary sense to the companies. The railway system generally, now that the troubles connected with competition and extension, from which at one time it suffered so severely, have in a great measure been surmounted, may be fairly considered to afford the prospects of increasing pecuniary benefits to its proprietors.

" *Railways in British Empire.*

" The following statement, obtained from various sources, shows the total number of miles of railways open and working in the British Empire to the most recent dates attainable, but mostly to the 31st December, 1873 :—

			Miles.	Miles.
United Kingdom				16,082
India			5,872	
Ceylon			82	
Dominion of Canada			3,899	
Jamaica			27	
Demerara			20	
Australia	New South Wales	402		
	Victoria	486		
	South Australia	133		
	Queensland	236		
Total, Australia			1,257	
Tasmania			45	
New Zealand			147	
Cape Colonies			67	
Mauritius			66	
Total of Colonial Empire of Great Britain				11,482
Total in British Empire				27,564

VII.—*Wages in France.*

From the *Pall Mall Gazette:*—

" The Bureau of General Statistics of France, in a recent publication, has collected a number of tables which throw light upon the rate of wages paid in the different trades and the several departments of France. Unfortunately, the value of the information thus supplied is diminished by two causes. The industries are not sufficiently divided, consequently the facts given are too general; and the figures apply only to the chief towns of departments, whereas, some of the greatest factories are situate in smaller places. A doubt has been expressed also whether the maires, by whom chiefly the statistics have been supplied, have exercised the requisite care in verifying them. However, we must not forget that the task undertaken was an extremely difficult one; and, in spite of defects, a considerable body of instructive information has, after all, been brought together.

" Exclusive of Paris, the average wages, with board, paid throughout France to labourers of all kinds amounted in 1853 to 96 centimes a day, or very nearly 9¼*d.* In 1871 this pay had risen to 1 fr. 40 c. In the eighteen years, therefore, the increase had been slightly over 45 per cent. During the same period the maximum wages had risen from 1 fr. 23 c. to 1 fr. 82 c.—an increase of nearly 48 per cent.; and the minimum had risen from 74 c. to 1 fr. 10 c., being a little over 48 per cent. The wages of labourers who did not receive board had risen from 1 fr. 89 c. to 2 frs. 65 c.—an increase of only 40 per cent. The maximum increased 42 per cent. and the minimum 43 per cent. It will be seen that the rate of increase has been highest in the case of those who receive board with wages, and it will further be observed that the difference of wages where board was and was not given amounted in 1853 to 93 c., or just 9*d.* a day, and in 1871 to 125 c., or exactly 1*s.* We may conclude, we presume, that the cost of feeding a man in the two years specified is represented with tolerable accuracy by these figures. If so, it follows that the cost of the necessaries of life had risen in the eighteen years as nearly as possible one-third, and therefore that the increase of wages was greater than the increase in the cost of living. In other words, the working classes have shared, whether proportionately or not these figures do not enable us to say, in the increased prosperity of France. As bearing upon this point, it must be borne in mind that 1871—the year of the capitulation of Paris, the Communist insurrection, and the first great indemnity loan—is an exceedingly unfavourable year to compare with 1853, when the Empire had restored confidence to the capitalist and peasant mind, and France was beginning that eager, industrial activity which has had such extraordinary results. Employment was certainly not so abundant in 1871 as in 1869, and it is natural to suppose, therefore, that wages had fallen in the interval.

" All classes of workpeople have shared in the rise of wages which has taken place, but the increase has been greatest, as was to have been expected, in the case of those who were worst paid in 1853, such as bakers, barbers, navvies, shoemakers, charcoal-burners, cutlers, &c. It has also been very marked in the trades connected with building—slaters, masons, house-painters, and sawyers. On the other hand, the increase has been slight in the case of those who were best paid in 1853—smiths, cabinet-makers, and saddlers. It has also been slight wherever handwork had to maintain competition with machinery, as in the case of weavers, stocking-makers, and rope-makers. But though the greatest increase took place in the trades specified, the best paid workmen are those engaged in the ornamental arts. Their average wages have risen from 3 frs. 42 c., to 4 frs. 81 c. in the provincial towns; and the most expert workmen of this class earned in 1871 as much as 6 frs. 50 c. a day, or within a fraction of 5*s.* 2½*d.* Among these the absolutely best paid are the workers in gold and the watch and clock makers. At the other end of the scale are found the hand-weavers. In conclusion, the average wages of skilled labour for men amounted in 1871 to 2 frs. 90 c., or not quite 2*s.* 4*d.* In the case of women the wages of skilled labour have increased less than in the case of men, and in 1871 their wages remained only about half those of men, or 1 fr. 48 c. on the average, that is to say, not quite 1*s.* 2¼*d.* a day.

" In Paris the rise of wages has been very much less than in the provinces, being at the rate of no more than 31 per cent. in the capital against 45 per cent. in the chief towns of departments. Bearing in mind the state of Paris in 1871—for the first half of the year besieged by Germans and Versallais, and for the latter half under a reign of terror—the wonder is that the rate of wages was even 31 per cent. above that of 1853. Unlike the experience of the provinces, again, it is in the case of the workpeople engaged in the ornamental arts that the greatest increase of wages has taken place. The rate of increase with regard to them has varied from 55 to 75 per cent., or about twice the average rate. The explanation, doubtless, is that Paris is monopolising this kind of manufacture—an explanation which is borne out by the fact that not only has the rate of increase been highest in these industries, but that, as in the provinces, the wages are also the absolutely highest. On the other hand, it is curious to find that it is the disagreeable trades which are worst paid. The average wages for men of all classes amount to 5 frs., or 4*s.* a day; the ornamental workers earn from 7 frs. to 9 frs. The average wages of women in Paris amounted to 2 frs. 78 c., or about 2*s.* 2¾*d.* Tailoresses (culottières) are the best paid, they earn 4 frs. a day; artificial flower makers and boot finishers, 3 frs.; and stay makers, only 2 frs. In manufactures, spinners earn about 2 frs. 90 c., but women spinners only half that sum. The average salary of weavers is somewhat different; men earn only 2 frs. 54 c., and women 1 fr. 72 c. It will be seen that as weavers, women earn more than as spinners, while men earn less. In conclusion, it will be observed that during the eighteen years ending with 1871 wages had risen in Paris in the case of both men and women only 31 per cent.; but we found reason to infer above that the cost of living had increased during the same period in the provinces about 33 per cent. Of course the increase in the cost of living was greater in Paris than in the provinces, and if so, it follows that the working classes of Paris were worse off in 1871 than in 1853.

"In the case of persons employed in business we are given no comparison with the past, but we are told that *commis* earn in the provinces 719 frs., or very nearly 29*l.*, and in Paris 1,400 frs., or 56*l.* So that in Paris the salaries are nearly double those of the provinces. In the provinces the minimum is as low as 485 frs., and the maximum 1,197 frs. In Paris the variation is from 24*l.* to 96*l.* The 'demoiselles de boutique' earn in Paris on an average 1,200 frs., or 48*l.*; the variation being from 16*l.* to 80*l.* Coming, in the last place, to domestic servants, we are told that in 1853 men 'attached to the service of the person' earned 9*l.*, and in 1871 13*l.*, in the provinces—an increase of nearly 45 per cent. The wages of women servants similarly employed rose from 6*l.* 10*s.* to 9*l.* But, in the case of both men and women, the wages of those in house service rose much less. In Paris the wages of men servants in 1871 varied from 400 frs. to 1,000 frs., averaging 600 frs., or 24*l.*—very nearly twice the provincial rate. The wages of women servants averaged 20*l.*, or considerably more than twice the provincial rate."

REGISTRATION OF THE UNITED KINGDOM.

No. I.—ENGLAND AND WALES.

MARRIAGES—Quarter ended June, 1874.
BIRTHS and DEATHS—Quarter ended September, 1874.

A.—*Serial Table of* Marriages, Births, *and* Deaths, *returned in the Years* 1874-68, *and in the* Quarters *of those Years.*

Calendar Years, 1874-68:—*Numbers.*

Years	'74.	'73.	'72.	'71.	'70.	'69.	'68.
Marriages No.	—	205,460	201,267	190,112	181,655	176,970	176,962
Births........ ,,	—	831,809	825,907	797,428	792,787	773,381	786,858
Deaths .... ,,	—	494,003	492,265	514,879	515,329	494,828	480,622

Quarters *of each Calendar Year*, 1874-68.

(I.) Marriages:—*Numbers.*

Qrs. ended last day of	'74.	'73.	'72.	'71.	'70.	'69.	'68.
March........ No.	41,417	41,209	40,539	36,305	36,455	37,752	36,696
June .... ,,	52,737	53,332	50,380	48,831	46,720	43,202	45,364
September ,,	—	49,658	49,818	46,536	43,900	43,978	43,509
December ,,	—	61,261	60,530	58,440	54,580	52,038	51,393

(II.) Births:—*Numbers.*

Qrs. ended last day of	'74.	'73.	'72.	'71.	'70.	'69.	'68.
March........ No.	214,437	216,367	208,752	209,523	206,366	203,775	198,584
June .... ,,	217,605	206,618	208,790	201,165	203,615	188,618	202,839
September ,,	209,898	203,609	201,746	193,271	192,521	190,394	192,583
December ,,	—	205,215	206,619	193,469	190,285	190,594	192,852

(III.) Deaths:—*Numbers.*

Qrs. ended last day of	'74.	'73.	'72.	'71.	'70.	'69.	'68.
March........ No.	136,528	132,626	134,952	138,393	143,773	133,096	119,676
June .... ,,	123,990	118,751	120,835	120,793	121,128	118,947	110,010
September ,,	124,099	114,343	118,927	121,332	124,297	114,644	130,482
December ,,	—	128,283	117,551	134,361	126,131	128,141	120,454

Annual Rates of MARRIAGES, BIRTHS, *and* DEATHS, *per* 1,000 PERSONS LIVING *in the Years* 1874-68, *and the* QUARTERS *of those Years.*

Calendar YEARS, 1874-68:—*General Ratios.*

YEARS............	'74.	Mean '64–73.	'73.	'72.	'71.	'70.	'69.	'68.
Estmtd. Popln. of England *in thousands* in middle of each Year....	23,649,	—	23,356,	23,068,	22,783,	22,501,	22,223,	21,949,
Persons Married	—	16·9	17·6	17·5	16·7	16·1	15·9	16·1
Births	—	35·4	35·6	35·8	35·0	35·2	34·8	35·8
Deaths................	—	22·4	21·2	21·3	22·6	22·9	22·3	21·9

QUARTERS *of each Calendar Year,* 1874-68.

(I.) PERSONS MARRIED :—*Ratio per* 1,000.

Qrs. ended last day of	'74.	Mean '64–73.	'73.	'72.	'71.	'70.	'69.	'68.
March	14·2	13·9	14·3	14·1	12·9	13·2	13·8	13·5
June....................	17·9	17·2	18·3	17·5	17·2	16·7	15·6	16·6
September	—	16·5	16·9	17·1	16·2	15·5	15·7	15·8
December	—	20·0	20·8	20·8	20·4	19·2	18·6	18·6

(II.) BIRTHS :—*Ratio per* 1,000.

Qrs. ended last day of	'74.	Mean '64–73.	'73.	'72.	'71.	'70.	'69.	'68.
March	36·8	37·1	37·6	36·3	37·3	37·3	37·3	36·4
June....................	36·9	36·1	35·5	36·3	35·5	36·4	34·1	37·2
September	35·2	34·3	34·6	34·7	33·7	34·0	34·1	34·9
December	—	34·2	34·9	35·5	33·7	33·6	34·1	35·0

(III.) DEATHS :—*Ratio per* 1,000.

Qrs. ended last day of	'74.	Mean '64–73.	'73.	'72.	'71.	'70.	'69.	'68.
March	23·4	24·9	23·0	23·5	24·7	26·0	24·4	21·9
June....................	21·0	21·6	20·4	21·0	21·3	21·6	21·5	20·2
September	20·8	21·2	19·4	20·5	21·1	22·0	20·5	23·7
December	—	22·2	21·8	20·2	23·4	22·3	22·9	21·8

B.—*Comparative Table of* CONSOLS, PROVISIONS, PAUPERISM, *and* TEMPERATURE *in each of the Nine* QUARTERS *ended September*, 1874.

1	2	3	4		5	6	7	8	9	10	
Quarters ending	Average Price of Consols (for Money).	Average Rate of Bank of England Discount.	Average Price of Wheat per Quarter in England and Wales.		Average Prices of Meat per lb. at the Metropolitan Meat Market (by the Carcase), with the *Mean* Prices.		Average Prices of Potatoes (York Regents) per Ton at Waterside Market, Southwark.	Pauperism. Quarterly Average of the Number of Paupers relieved on the *last day* of each week.		Sea-borne Coal in the London Market per Ton.	
					Beef.	Mutton.		In-door.	Out-door.		
1872	£		*s.*	*d.*	*d. d. d.*	*d. d. d.*	*s. s. s.*			*s.*	*d.*
Sept. 30	$92\frac{4}{8}$	3·5	58	11	$5\frac{1}{4}$—8 $6\frac{5}{8}$	$6\frac{1}{4}$—$9\frac{1}{4}$ $7\frac{3}{4}$	105—133 119	126,422	681,867	27	6
Dec. 31	$92\frac{2}{8}$	5·9	57	3	$5\frac{1}{2}$—8 $6\frac{3}{4}$	6—$8\frac{1}{2}$ $7\frac{1}{4}$	153—187 170	138,662	675,644	26	5
1873											
Mar. 31	$92\frac{3}{8}$	3·9	55	10	$5\frac{1}{2}$—8 $6\frac{3}{4}$	$6\frac{1}{4}$—9 $7\frac{5}{8}$	179—235 207	150,381	703,377	33	1
June 30	$93\frac{3}{8}$	5·2	56	5	6—$8\frac{3}{4}$ $7\frac{3}{8}$	$6\frac{3}{4}$—$9\frac{1}{2}$ $8\frac{1}{8}$	183—242 212	135,638	666,261	29	3
Sept. 30	$92\frac{4}{8}$	3·8	61	4	$5\frac{3}{4}$—$8\frac{3}{4}$ $7\frac{1}{4}$	$6\frac{1}{2}$—$9\frac{1}{4}$ $7\frac{7}{8}$	95—120 107	127,672	632,417	30	1
Dec. 31	$92\frac{4}{8}$	6·3	61	1	5—$8\frac{1}{2}$ $6\frac{3}{4}$	$5\frac{3}{4}$—$8\frac{1}{2}$ $7\frac{1}{8}$	96—117 107	137,409	625,316	30	8
1874											
Mar. 31	92	3·6	62	2	$5\frac{1}{4}$—$8\frac{1}{4}$ $6\frac{3}{4}$	$5\frac{1}{2}$—$8\frac{1}{4}$ $6\frac{7}{8}$	112—127 119	146,082	641,910	23	5
June 30	93	3·4	61	1	5—8 $6\frac{1}{2}$	5—$8\frac{1}{4}$ $6\frac{5}{8}$	135—165 150	133,846	614,738	23	7
Sept. 30	$92\frac{5}{8}$	3·0	55	5	$7\frac{3}{4}$—8 $7\frac{7}{8}$	$7\frac{1}{4}$—$7\frac{3}{4}$ $7\frac{1}{2}$	75—104 90	129,996	592,958	23	3

C.—*General Average Death-Rate Table:—Annual Rate of Mortality to* 1,000 *of the Population in the Eleven Divisions of England.*

Divisions.	Average Annual Rate of Mortality to 1,000 Living in						
	Ten Years, 1861-70.	1873. Quarters ending			1874. Quarters ending		
		June.	Sept.	Dec.	March.	June.	Sept.
England and Wales	22·4	20·4	19·4	21·8	23·4	21·0	20·8
I. London	24·3	20·0	21·8	25·3	23·7	19·9	20·6
II. South-Eastern counties	19·1	16·5	15·3	16·3	19·5	17·1	15·9
III. South Midland ,,	20·2	17·5	16·5	17·8	20·1	17·5	17·0
IV. Eastern counties	20·1	18·6	17·3	17·7	20·4	18·8	16·7
V. South-Western counties	19·9	18·2	15·0	17·9	21·4	18·8	16·6
VI. West Midland ,,	21·8	19·8	18·3	21·5	23·3	20·4	20·2
VII. North Midland ,,	20·8	20·1	18·5	19·5	21·6	19·6	20·6
VIII. North-Western ,,	26·3	24·1	23·1	24·4	27·4	25·7	26·5
IX. Yorkshire	24·0	22·1	21·8	23·3	23·4	22·5	23·8
X. Northern counties	22·7	22·9	23·5	25·1	26·3	24·2	25·2
XI. Monmouthshire and Wales	21·6	21·7	17·4	21·7	26·0	23·7	20·0

D.—*Special Average Death-Rate Table:*—ANNUAL RATE *of* MORTALITY *per* 1,000 *in* TOWN *and* COUNTRY DISTRICTS *of* ENGLAND *in each Quarter of the Years* 1874-72.

	Area in Statute Acres.	Population Enumerated. 1871.	Quarters ending	Annual Rate of Mortality per 1,000 in each Quarter of the Years 1874.	Mean '64-73.	1873.	1872.
In 130 Districts, and 59 Sub-districts, comprising the *Chief Towns*	3,183,965	12,892,982	March ..	25·2	27·0	24·5	25·4
			June	22·5	23·1	21·6	22·6
			Sept.	23·5	23·9	22·0	23·1
			Dec.	—	24·8	24·7	22·2
			Year	—	24·7	23·2	23·4
In the remaining Districts and Sub-districts of England and Wales, comprising chiefly *Small Towns* and *Country Parishes*	34,135,256	9,819,284	Year	—	19·5	18·5	18·6
			March ..	20·9	22·4	21·1	20·9
			June	19·1	19·5	18·8	18·8
			Sept.	17·2	17·4	16·0	17·0
			Dec.	—	18·6	17·9	17·6

Note.—The three months January, February, March, contain 90, in leap year 91 days; the three months April, May, June, 91 days; each of the last two quarters of the year, 92 days. For this inequality a correction has been made in these calculations, also for the difference between 365 and 365·25 days, and 366 and 365·25 days in leap year.

E.—*Special Town Table:*—POPULATION; BIRTHS, DEATHS; MEAN TEMPERATURE *and* RAINFALL *in the Third Quarter of* 1874, *in* TWENTY-ONE *Large Towns.*

Cities, &c.	Estimated Population in the Middle of the Year 1874.	Births in 13 Weeks ending 3rd Oct., 1874.	Deaths in 13 Weeks ending 3rd Oct., 1874.	Annual Rate to 1,000 Living during the 13 Weeks ending 3rd Oct., 1874. Births.	Deaths.	Mean Temperature in 13 Weeks ending 3rd Oct., 1874.	Rainfall in Inches in 13 Weeks ending 3rd Oct., 1874.
Total of 21 towns in U. K.	7,618,655	69,073	46,437	36·4	24·5	58·1	8·06
London	3,400,701	29,137	17,486	34·4	20·6	60·6	6·72
Portsmouth	120,436	925	550	30·8	18·3	—	6·40
Norwich	82,257	617	441	30·1	21·5	58·5	6·96
Bristol	192,889	1,700	973	35·4	20·2	—	—
Wolverhampton	70,896	694	447	39·3	25·3	58·7	8·78
Birmingham	360,892	3,493	2,504	38·8	27·8	58·8	7·82
Leicester	106,202	1,090	770	41·2	29·1	58·8	5·48
Nottingham	90,894	784	559	34·6	24·7	58·4	5·18
Liverpool	510,640	4,894	4,394	38·5	34·5	57·6	8·40
Manchester	355,339	3,450	2,650	39·0	29·9	58·5	10·48
Salford	133,068	1,416	1,022	42·7	30·8	57·3	12·07
Oldham	86,281	910	575	42·3	26·7	—	—
Bradford	163,056	1,646	1,154	40·5	28·4	57·6	6·87
Leeds	278,798	2,967	2,063	42·7	29·7	58·1	6·71
Sheffield	261,029	2,671	1,835	41·1	28·2	58·2	5·70
Hull	130,996	1,311	873	40·2	26·7	56·9	6·52
Sunderland	104,378	1,097	623	42·2	24·0	60·0	5·50
Newcastle-on-Tyne	135,437	1,354	1,069	40·1	31·7	—	—
Edinburgh	211,691	1,757	1,017	33·3	19·3	—	—
Glasgow	508,109	4,928	3,535	38·9	27·9	—	—
Dublin	314,666	2,232	1,897	28·5	24·2	58·0	9·56

F.—*Divisional Table:*—MARRIAGES *Registered in Quarters ended 30th June,* 1874-72; *and* BIRTHS *and* DEATHS *in Quarters ended 30th September,* 1874-72.

1	2	3	4	5	6
DIVISIONS. (England and Wales.)	AREA* in Statute Acres.	POPULATION, 1871. (*Persons.*)	MARRIAGES in Quarters ended 30th June.		
			1874.	1873.	1872.
		No.	No.	No.	No.
ENGLD. & WALES....*Totals*	37,319,221	22,712,266	52,737	53,332	50,197
I. London	75,362	3,254,260	8,676	8,770	8,312
II. South-Eastern	3,994,431	2,167,726	4,086	4,015	3,854
III. South Midland	3,201,325	1,442,654	2,343	2,525	2,367
IV. Eastern	3,211,441	1,218,728	1,850	1,910	1,885
V. South-Western	4,981,170	1,880,777	3,673	3,625	3,484
VI. West Midland	3,945,460	2,720,669	6,072	6,527	6,057
VII. North Midland	3,535,445	1,406,935	3,825	3,797	3,450
VIII. North-Western	1,998,914	3,389,044	8,946	8,839	8,734
IX. Yorkshire	3,702,384	2,395,569	5,966	6,096	5,545
X. Northern	3,547,947	1,414,234	3,955	4,024	3,615
XI. Monmthsh. & Wales	5,125,342	1,421,670	3,345	3,204	2,894

7	8	9	10	11	12	13
DIVISIONS. (England and Wales.)	BIRTHS in Quarters ended 30th September.			DEATHS in Quarters ended 30th September.		
	1874.	1873.	1872.	1874.	1873.	1872.
	No.	No.	No.	No.	No.	No.
ENGLD. & WALES....*Totals*	209,898	203,609	201,105	124,099	114,343	118,786
I. London	29,137	28,720	28,399	17,486	18,234	17,660
II. South-Eastern	17,238	17,072	17,611	9,159	8,661	9,437
III. South Midland	11,861	11,885	12,154	6,400	6,156	6,752
IV. Eastern	9,795	9,523	9,768	5,240	5,397	5,410
V. South-Western	13,812	13,967	13,978	7,947	7,153	7,677
VI. West Midland	25,439	25,042	24,498	14,369	12,829	13,606
VII. North Midland	13,106	12,734	12,302	7,536	6,706	7,677
VIII. North-Western	35,187	32,867	32,638	23,758	20,384	20,917
IX. Yorkshire	24,899	23,681	22,995	15,188	13,670	14,764
X. Northern	16,188	15,574	14,497	9,623	8,768	8,370
XI. Monmthsh. & Wales	13,236	12,544	12,265	7,393	6,385	6,516

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* These are revised figures, and may be found to differ somewhat from those before published.

G.—*General Meteorological Table, Quarter ended September*, 1874.

[Abstracted from the particulars supplied to the Registrar-General by James Glaisher, Esq., F.R.S., &c.]

1874. Months.	Temperature of										Elastic Force of Vapour.		Weight of Vapour in a Cubic Foot of Air.	
	Air.			Evaporation.		Dew Point.		Air—Daily Range.		Water of the Thames				
	Mean.	Diff. from Average of 103 Years.	Diff. from Average of 33 Years.	Mean.	Diff. from Average of 33 Years.	Mean.	Diff. from Average of 33 Years.	Mean.	Diff. from Average of 33 Years.		Mean.	Diff. from Average of 33 Years.	Mean.	Diff. from Average of 33 Years.
	°	°	°	°	°	°	°	°	°	°	In.	In.	Grs.	Gr.
July ...	64·4	+2·8	+2·2	59·0	+1·3	54·6	+0·7	25·4	+4·3	67·0	·427	+·010	4·7	+0·1
Aug. ...	60·3	−0·5	−1·1	56·6	−0·7	53·3	−0·5	20·6	+0·8	64·0	·407	−·009	4·5	−0·1
Sept. ...	57·9	+1·4	+0·7	55·4	+1·4	53·1	+2·1	18·1	−0·4	60·5	·404	+·025	4·5	+0·3
Mean ...	60·9	+1·2	+0·6	57·0	+0·7	53·7	+0·8	21·4	+1·6	63·8	·413	+·009	4·6	+0·1

1874. Months.	Degree of Humidity.		Reading of Barometer.		Weight of a Cubic Foot of Air.		Rain.		Daily Horizontal Movement of the Air.	Reading of Thermometer on Grass.				
										Number of Nights it was			Lowest Reading at Night.	Highest Reading at Night.
	Mean.	Diff. from Average of 33 Years.	Mean.	Diff. from Average of 33 Years.	Mean.	Diff. from Average of 33 Years.	Amnt.	Diff. from Average of 59 Years.		At or below 30°.	Between 30° and 40°.	Above 40°.		
			In.	In.	Grs.	Grs.	In.	In.	Miles.				°	°
July ...	70	− 5	29·826	+ ·025	526	− 2	2·6	+0·1	220	0	4	27	37·0	58·0
Aug. ...	78	+ 2	29·783	− ·010	530	+ 1	1·4	−1·0	301	0	5	26	33·9	54·6
Sept. ...	84	+ 4	29·752	− ·055	531	− 2	2·2	−0·2	259	0	8	22	34·7	54·0
Mean ...	77	0	29·787	− ·013	529	− 1	Sum 6·2	Sum −1·1	Mean 260	Sum 0	Sum 17	Sum 75	Lowest 33·9	Highst 58·0

Note.—In reading this table it will be borne in mind that the sign (−) minus signifies below the average, and that the sign (+) plus signifies above the average.

The mean temperature of the air for July was 64°·4, being respectively 2°·8 and 2°·2 higher than the averages of 103 years, and the preceding 33 years. It was 1°·0 higher than that of 1873 and 0°·6 lower than that of 1872.

The mean temperature of August was 60°·3, being 0°·5 lower than the average of 103 years, and 1°·1 lower than that of the preceding 33 years, it was respectively 2°·4 and 0°·7 lower than the corresponding values in 1873 and 1872.

The mean temperature of September was 57°·9, being respectively 1°·4 and 0°·7 higher than the averages of 103 years, and the preceding 33 years; and 3°·2 and 0°·5 respectively higher than those recorded in the month of September in the years 1873 and 1872.

The mean high day temperatures of the air were 4°·7 and 0°·7 higher than their respective averages in July and September and 0°·9 lower in August.

The mean low night temperatures were respectively 0°·4 and 1°·2 higher than their averages in July and September, and 1°·6 lower in August.

The mean daily ranges of temperature were greater than their respective averages in July and August by 4°·3 and 0°·8, but that for September was lower by 0°·4.

H.—*Special Meteorological Table, Quarter ended 30th September*, 1874.

1 NAMES OF STATIONS.	2 Mean Pressure of Dry Air reduced to the Level of the Sea.	3 Highest Reading of the Thermometer.	4 Lowest Reading of the Thermometer.	5 Range of Temperature in the Quarter.	6 Mean Monthly Range of Temperature.	7 Mean Daily Range of Temperature.	8 *Mean Temperature of the Air.*	9 Mean Degree of Humidity.
	in.	°	°	°	°	°	°	
Guernsey................	29·576	72·0	48·0	24·0	20·8	9·9	59·1	86
Osborne	29·528	88·2	44·8	43·4	35·8	17·9	61·2	83
Barnstaple	29·523	86·0	48·0	38·0	34·3	14·6	61·5	79
Royal Observatory	29·546	92·0	43·4	48·6	39·2	21·4	60·8	77
Royston	29·490	92·2	39·9	52·3	43·3	23·8	60·5	75
Norwich	—	88·0	38·0	50·0	39·7	17·9	59·7	85
Llandudno	29·495	81·3	45·0	36·3	31·1	15·5	60·1	76
Derby	29·510	86·0	41·0	45·0	35·0	16·7	59·4	77
Stonyhurst	29·478	83·0	38·2	44·8	39·0	16·7	56·9	83
North Shields........	—	75·2	41·0	34·2	29·2	12·7	56·5	73

10 NAMES OF STATIONS.	11 WIND. Mean estimated Strength.	12 WIND. Relative Proportion of N.	13 E.	14 S.	15 W.	16 Mean Amount of Cloud.	17 RAIN. Number of Days on which it fell.	18 Amount Collected.
								in.
Guernsey................	1·2	6	4	9	11	4·1	39	6·21
Osborne	0·3	3	4	11	13	5·2	42	6·17
Barnstaple	1·4	1	4	13	13	3·9	56	14·35
Royal Observatory	0·4	2	4	9	15	6·4	38	6·25
Royston	—	4	3	11	13	5·8	35	4·50
Norwich	—	3	4	13	11	—	29	5·79
Llandudno	0·7	3	3	8	17	5·9	45	7·31
Derby	—	4	3	7	17	—	—	6·46
Stonyhurst	—	4	3	10	13	7·1	61	15·89
North Shields........	1·5	6	4	5	17	6·5	46	4·78

No. II.—SCOTLAND.

MARRIAGES, BIRTHS, AND DEATHS IN THE QUARTER ENDED 30TH SEPTEMBER, 1874.

I.—*Serial Table:—Number of Births, Deaths, and Marriages in Scotland, and their Proportion to the Population estimated to the Middle of each Year, during each Quarter of the Years* 1874-70 *inclusive.*

	1874.		1873.		1872.		1871.		1870.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
1st Quarter—										
Births	29,837	3·45	30,210	3·52	29,506	3·47	28,902	3·43	28,665	3·44
Deaths........	20,775	2·40	21,443	2·50	21,245	2·50	19,756	2·34	22,198	2·66
Marriages ..	6,777	0·78	6,618	0·77	5,820	0·68	5,415	0·64	5,647	0·67
Mean Temperature	40°·9		38°·1		40°·7		39°·1		36°·9	
2nd Quarter—										
Births	32,295	3·73	31,283	3·64	30,726	3·61	30,583	3·63	30,636	3·67
Deaths........	19,640	2·27	19,931	2·32	19,045	2·24	18,715	2·22	18,027	2·15
Marriages ..	6,730	0·78	6,690	0·78	6,398	0·75	5,946	0·70	5,770	0·69
Mean Temperature	49°·53		49°·2		49°·2		48°·7		51°·0	
3rd Quarter—										
Births	30,702	3·55	28,975	3·38	29,181	3·43	28,689	3·40	28,263	3·39
Deaths........	18,099	2·09	17,072	1·99	16,692	1·96	16,835	2·00	16,573	2·03
Marriages ..	5,582	0·64	5,816	0·68	5,891	0·69	5,424	0·64	5,318	0·63
Mean Temperature	56°·03		55°·4		55°·8		56°·3		57°·1	
4th Quarter—										
Births	—	—	29,270	3·41	29,460	3·46	27,953	3·32	27,826	3·26
Deaths........	—	—	18,411	2·15	18,759	2·20	19,338	2·29	17,367	2·08
Marriages ..	—	—	7,606	0·88	7,471	0·88	7,181	0·85	7,119	0·85
Mean Temperature	—		42°·7		41°·8		41°·3		39°·6	
Year—										
Population.	3,462,916		3,430,923		3,399,226		3,367,922		3,336,707	
Births	—	—	119,738	3·49	118,873	3·49	116,127	3·45	115,390	3·46
Deaths........	—	—	76,857	2·24	75,741	2·22	74,644	2·22	74,165	2·22
Marriages ..	—	—	26,730	0·76	25,580	0·75	23,966	0·71	23,854	0·71

II.—*Special Average Table:—Number of Births, Deaths, and Marriages in Scotland and in the Town and Country Districts during the Quarter ending 30th September*, 1874, *and their Proportion to the Population; also the Number of Illegitimate Births, and their Proportion to the Total Births.*

Registration Groups of Districts.	Population.		Total Births.			Illegitimate Births.		
	Census, 1871.	Estimated to Middle of 1874.	Number.	Per Cent.	Ratio. One in every	Number.	Per Cent.	Ratio. One in every
SCOTLAND	3,360,018	3,462,916	30,702	3·55	28	2,687	8·75	11·4
Principal towns	1,068,556	1,136,154	10,626	3·74	27	939	8·8	11·4
Large ,, ...	332,180	354,335	3,688	4·16	24	246	6·7	14·9
Small ,, ...	778,164	796,900	7,344	3·69	27	608	8·3	12·0
Mainland rural	1,049,114	1,045,027	8,122	3·18	31	849	10·5	9·5
Insular ,, ...	132,004	130,500	922	2·83	35	45	4·9	20·4

Registration Groups of Districts.	Population.		Deaths.			Marriages.		
	Census, 1871.	Estimated to Middle of 1874.	Number.	Per Cent.	Ratio. One in every	Number.	Per Cent.	Ratio. One in every
SCOTLAND	3,360,018	3,462,916	18,099	2·09	48	5,582	0·64	156
Principal towns	1,068,556	1,136,154	7,249	2·55	39	2,379	0·84	119
Large ,, ...	332,180	354,335	2,188	2·47	40	780	0·88	114
Small ,, ...	778,164	796,900	4,078	2·05	49	1,201	0·60	167
Mainland rural	1,049,114	1,045,027	4,091	1·56	64	1,142	0·44	227
Insular ,, ...	132,004	130,500	493	1·51	66	80	0·25	400

III.—*Bastardy Table:—Proportion of Illegitimate in every Hundred Births in the Divisions and Counties of Scotland, during the Quarter ending 30th September*, 1874.

Divisions.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.	Counties.	Per Cent. of Illegitimate.
SCOTLAND	8·7						
Northern	7·3	Shetland	3·2	Forfar	9·1	Lanark........	7·5
		Orkney	3·3	Perth	10·1	Linlithgow .	9·2
North-Western	6·0	Caithness	13·2	Fife	6·3	Edinburgh .	8·5
North-Eastern	15·5	Sutherland....	7·0	Kinross	7·8	Haddington	6·4
East Midland ..	8·6	Ross and Cromarty	3·6	Clackmannan	12·3	Berwick	9·8
						Peebles........	6·6
West Midland.	6·4	Inverness	8·4	Stirling	4·6	Selkirk	4·1
		Nairn	1·6	Dumbarton ..	6·2	Roxburgh ..	11·6
South-Western	7·3	Elgin	18·0	Argyll	9·7	Dumfries	14·9
South-Eastern.	8·2	Banff	20·1	Bute	7·2	Kirkcudbright ..	16·3
		Aberdeen	14·4	Renfrew........	6·6		
Southern	14·6	Kincardine....	16·5	Ayr................	7·3	Wigtown	16·2

IV.—*Divisional Table:*—MARRIAGES, BIRTHS, *and* DEATHS *Registered in the Quarter ended* 30*th September*, 1874.

1 DIVISIONS. (Scotland)	2 AREA in Statute Acres.	3 POPULATION, 1871. (*Persons.*)	4 Marriages.	5 Births.	6 Deaths.
		No.	No.	No.	No.
SCOTLAND .... *Totals*	19,639,377	3,360,018	—	—	—
I. Northern	2,261,622	127,191	95	865	427
II. North-Western........	4,739,876	166,351	122	1,091	640
III. North-Eastern	2,429,594	393,199	518	3,210	1,579
IV. East Midland	2,790,492	559,676	820	4,850	3,082
V. West Midland	2,693,176	251,088	362	2,127	1,308
VI. South-Western........	1,462,397	1,183,218	2,699	12,833	7,791
VII. South-Eastern	1,192,524	475,523	736	4,228	2,399
VIII. Southern	2,069,696	203,772	230	1,498	873

No. III.—GREAT BRITAIN AND IRELAND.

SUMMARY *of* MARRIAGES, *in the Quarter ended* 30*th June*, 1874; *and* BIRTHS *and* DEATHS, *in the Quarter ended* 30*th September*, 1874.

COUNTRIES.	[000's omitted.]		Marriages.	Per 1,000 of Population.	Births.	Per 1,000 of Population.	Deaths.	Per 1,000 of Population.
	Area in Statute Acres.	Population, 1871. (*Persons.*)						
		No.	No.	Ratio.	No.	Ratio.	No.	Ratio.
England and Wales	37,325,	22,712,	52,737	2·3	209,898	9·2	124,099	5·5
Scotland	19,639,	3,360,	6,730	2·0	30,702	9·1	18,099	5·4
Ireland	20,323,	5,412,	5,387	1·0	33,768	6·2	19,636	3·6
GREAT BRITAIN AND IRELAND	77,287,	31,484,	64,854	2·0	274,368	8·7	161,824	5·1

Note.—The numbers against Ireland represent the marriages, births, and deaths that the local registrars have *succeeded* in recording; but how far the registration approximates to absolute completeness, does not at present appear to be known. It will be seen that the Irish ratios of births, deaths, and marriages are much under those of England and Scotland—ED. *S. J.*

Trade of United Kingdom, 1874-73-72.—*Distribution of* **Exports*** *from United Kingdom, according to the Declared Real Value of the Exports; and the Declared Real Value (Ex-duty) of* **Imports** *at Port of Entry, and therefore including Freight and Importer's Profit.*

Merchandise (*excluding Gold and Silver*), Imported from, and Exported to, the following Foreign Countries, &c. [000's omitted.]	First Nine Months.					
	1874.		1873.		1872.	
	Imports from	*Exports to*	Imports from	*Exports to*	Imports from	*Exports to*
I.—Foreign Countries:	£	£	£	£	£	£
Northern Europe; viz., Russia, Sweden, Norway, Denmark & Iceland, & Heligoland	27,063,	12,972,	25,650,	12,323,	05,546,	8,624,
Central Europe; viz., Prussia, Germany, the Hanse Towns, Holland, and Belgium	35,682,	33,868,	33,798,	38,985,	32,707,	40,051,
Western Europe; viz., France, Portugal (with Azores, Madeira, &c.), and Spain (with Gibraltar and Canaries)	44,312,	18,958,	43,547,	19,103,	39,633,	18,213,
Southern Europe; viz., Italy, Austrian Empire, Greece, Ionian Islands, and Malta	4,100,	6,881,	4,807,	8,149,	5,132,	7,085,
Levant; viz., Turkey, with Wallachia and Moldavia, Syria and Palestine, and Egypt	11,583,	8,767,	14,556,	11,346,	16,225,	10,729,
Northern Africa; viz., Tripoli, Tunis, Algeria and Morocco	1,239,	441,	1,043,	360,	837,	277,
Western Africa	1,271,	668,	1,356,	876,	1,374,	800,
Eastern Africa; with African Ports on Red Sea, Aden, Arabia, Persia, Bourbon, and Kooria Mooria Islands	282,	289,	111,	209,	98,	151,
Indian Seas, Siam, Sumatra, Java, Philippines; other Islands	2,460,	1,310,	1,561,	930,	1,533,	897,
South Sea Islands	54,	26,	35,	73,	95,	28,
China, including **Hong Kong**	8,639,	7,323,	8,632,	7,919,	9,839,	8,988,
United States of America	58,827,	22,487,	55,432,	27,752,	41,959,	32,647,
Mexico and Central America	1,428,	909,	1,640,	1,135,	1,375,	740,
Foreign West Indies and Hayti	4,098,	2,140,	4,451,	3,276,	4,890,	3,113,
South America (Northern), New Granada, Venezuela, and Ecuador	958,	3,882,	1,194,	2,781,	1,063,	2,690,
„ **(Pacific)**, Peru, Bolivia, Chili, and Patagonia	7,817,	3,195,	7,891,	4,532,	8152,	4,166,
„ **(Atlantic)** Brazil, Uruguay, and Buenos Ayres	7,670,	9,143,	8,749,	9,810,	10,058,	9,523,
Whale Fisheries; Grnlnd., Davis' Straits, Southn. Whale Fishery, & Falkland Islands	105,	12,	102,	12,	91,	7,
Total—Foreign Countries	217,588,	131,771,	214,553,	149,571,	200,627,	148,718,
II.—British Possessions:						
British India, Ceylon, and Singapore	29,971,	20,640,	28,613,	17,484,	32,126,	16,689,
Austral. Cols.—N. So. W., Vict., and Queensld.	10,637,	8,351,	9,152,	8,229,	9,074,	6,666,
„ „ So. Aus., W. Aus., Tasm., and N. Zealand	6,443,	4,727,	6,134,	3,761,	5,156,	2,649,
British North America	7,922,	8,329,	6,597,	7,595,	5,105,	8,900,
„ W. Indies with Btsh. Guiana & Honduras	5,795,	2,241,	5,758,	2,365,	5,943,	2,396,
Cape and Natal	3,091,	3,150,	3,026,	3,239,	2,558,	2,740,
Brt. W. Co. of Af., Ascension and St. Helena	407,	663,	325,	487,	380,	596,
Mauritius	903,	453,	1,123,	425,	1,192,	427,
Channel Islands	559,	615,	457,	528,	513,	533,
Total—British Possessions............	65,728,	49,169,	61,184,	44,104,	62,047,	41,596,
General Total ....£	283,316,	180,940,	275,737,	192,675,	262,674,	190,314,

* *i.e.*, British and Irish produce and manufactures.

IMPORTS.—(United Kingdom.)—**First Eight Months** (*January-August*), **1874-73-72-71-70.**—*Declared Real Value* (*Ex-duty*), *at Port of Entry* (*and therefore including Freight and Importer's Profit*), *of Articles of Foreign and Colonial Merchandise Imported into the United Kingdom.*

(First Eight Months.) [000's omitted.] FOREIGN ARTICLES IMPORTED.		1874.	1873.	1872.	1871.	1870.
		£	£	£	£	£
RAW MATLS.–*Textile*, &c.	Cotton Wool	36,592,	41,606,	40,475,	39,064,	36,828,
	Wool (Sheep's) ..	17,827,	20,082,	16,096,	15,303,	12,620,
	Silk*	10,562,	8,556,	9,571,	9,995,	13,156,
	Flax	4,269,	3,831,	3,418,	3,275,	3,825,
	Hemp	4,204,	4,279,	4,694,	4,311,	2,815,
	Indigo	1,980,	2,074,	2,367,	2,450,	2,152,
		75,434,	80,428,	76,621,	74,398,	71,396,
" " *Various.*	Hides	4,095,	4,673,	4,409,	3,077,	2,521,
	Oils	2,271,	3,777,	3,030,	3,377,	2,428,
	Metals	6,724,	8,232,	7,829,	6,218,	3,109,
	Tallow	1,673,	1,980,	1,992,	1,721,	1,752,
	Timber	13,556,	9,935,	8,022,	6,594,	5,184,
		28,319,	28,597,	25,282,	20,987,	14,994,
" " *Agrcltl.*	Guano	1,210,	1,114,	737,	1,692,	2,182,
	Seeds	4,851,	3,862,	4,330,	4,878,	1,572,
		6,061,	4,976,	5,067,	6,570,	3,754,
TROPICAL, &c., PRODUCE.	Tea	6,486,	5,899,	8,433,	7,628,	5,860,
	Coffee	5,484,	5,601,	4,029,	4,114,	2,737,
	Sugar & Molasses	14,566,	14,805,	14,594,	13,679,	12,820,
	Tobacco	2,410,	2,567,	1,764,	2,657,	834,
	Rice	2,235,	1,887,	1,532,	1,551,	883,
	Fruits	1,026,	936,	1,232,	1,008,	619,
	Wines	4,707,	5,375,	5,271,	4,820,	3,351,
	Spirits	1,840,	2,041,	1,560,	2,139,	1,813,
		38,754,	39,111,	38,415,	37,596,	28,917,
FOOD	Grain and Meal.	35,585,	33,342,	28,572,	25,212,	21,796,
	Provisions	17,441,	16,044,	13,181,	11,793,	9,434,
		53,026,	49,386,	41,753,	37,005,	31,230,
Remainder of Enumerated Articles		26,371,	19,904,	24,890,	22,661,	10,175,
TOTAL ENUMERATED IMPORTS		227,965,	222,402,	212,028,	199,216,	160,466,
Add for UNENUMERATED IMPORTS (say)		24,373,	23,500,	22,000,	16,293,	40,116,
TOTAL IMPORTS		252,338,	245,902,	235,028,	215,510,	200,582,

* "Silk," inclusive of manufactured silk, "not made up."

EXPORTS.—(United Kingdom.)—**First Nine Months** (*January—September*), **1874-73-72-71-70.**—*Declared Real Value, at Port of Shipment, of Articles of* British *and* Irish *Produce and Manufactures Exported from United Kingdom.*

(Nine Months.) [000's omitted.] British Produce, &c., Exported.		1874.	1873.	1872.	1871.	1870.
		£	£	£	£	£
Manfrs.—*Textile.*	Cotton Manufactures	45,121,	47,089,	47,467,	43,118,	42,406,
	,, Yarn	10,889,	11,735,	12,078,	11,096,	10,823,
	Woollen Manufactures	18,386,	20,343,	25,815,	20,694,	16,343,
	,, Yarn	4,062,	3,963,	4,543,	4,457,	3,754,
	Silk Manufactures	1,614,	1,438,	1,743,	1,598,	1,762,
	,, Yarn	820,	1,280,	1,343,	975,	134,
	Linen Manufactures	5,606,	5,867,	6,367,	5,622,	5,528,
	,, Yarn	1,305,	1,624,	1,520,	1,699,	1,755,
		87,803,	93,339,	100,876,	89,259,	82,505,
Sewed.	Apparel	2,259,	2,447,	2,170,	1,972,	1,472,
	Haberdy. and Mllnry.	4,718,	5,138,	5,097,	4,524,	3,605,
		6,977,	7,585,	7,267,	6,496,	5,077,
Metals, &c.	Hardware	3,269,	3,727,	3,684,	2,803,	3,339,
	Machinery	7,269,	7,397,	5,597,	4,210,	4,094,
	Iron	23,703,	29,144,	26,591,	19,338,	16,370,
	Copper and Brass	2,932,	2,794,	2,655,	2,379,	2,345,
	Lead and Tin	1,341,	1,167,	1,406,	1,228,	3,519,
	Coals and Culm	9,187,	9,924,	7,209,	4,490,	4,132,
		47,701,	54,153,	47,142,	34,448,	33,799,
Ceramic Manufcts.	Earthenware and Glass	2,203,	2,631,	2,258,	1,887,	1,888
Indigenous Mnfrs. and Products.	Beer and Ale	1,921,	1,830,	1,530,	1,386,	1,451,
	Butter	184,	192,	219,	236,	212,
	Cheese	54,	55,	56,	68,	78,
	Candles	136,	157,	171,	130,	82,
	Salt	510,	607,	392,	359,	294,
	Spirits	118,	166,	164,	148,	138,
	Soda	1,965,	2,222,	1,814,	1,268,	1,083,
		4,888,	5,229,	4,346,	3,595,	3,338,
Various Manufcts.	Books, Printed	628,	661,	629,	506,	448,
	Furniture	—	—	—	—	163,
	Leather Manufactures	2,573,	2,523,	2,668,	2,769,	1,806,
	Soap	199,	180,	228,	167,	164,
	Plate and Watches	181,	182,	143,	131,	359,
	Stationery	501,	490,	467,	376,	358,
		4,082,	4,036,	4,135,	3,949,	3,293,
Remainder of Enumerated Articles		14,666,	13,773,	12,667,	13,830,	10,592,
Unenumerated Articles		12,620,	12,930,	11,624,	10,126,	8,142,
Total Exports		180,940,	193,676,	190,315,	163,590,	148,634,

SHIPPING.—(United Kingdom.)—*Account of Tonnage of Vessels Entered and Cleared with Cargoes, from and to Various Countries, during the* **Nine Months** *ended September*, 1874-73-72.

Countries from whence Entered and to which Cleared.	Total British and Foreign.					
	1874.		1873.		1872.	
	Entered.	Cleared.	Entered.	Cleared.	Entered.	Cleared.
FOREIGN COUNTRIES.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Russia { Northern ports	1,067,510	765,739	847,992	606,644	699,592	573,835
Russia { Southern ,, ...	180,561	134,982	295,633	122,289	449,506	160,125
Sweden	906,808	494,737	750,827	440,271	706,972	411,705
Norway	662,273	257,202	700,038	220,295	622,014	210,919
Denmark........................	116,813	410,773	129,727	378,986	135,767	403,723
Germany........................	1,173,670	1,718,882	1,245,514	1,590,546	1,144,329	1,845,166
Holland	663,887	753,718	625,422	827,726	614,430	814,948
Belgium	597,866	620,736	618,184	688,082	587,823	575,470
France........................	1,226,727	1,791,364	1,245,718	1,863,404	1,187,455	1,787,360
Spain	617,352	397,534	776,010	404,000	641,095	415,128
Portugal	212,166	225,470	239,877	218,441	207,040	185,314
Italy........................	173,038	577,141	178,217	544,326	192,447	572,726
Austrian territories	21,984	65,633	17,550	75,851	29,648	130,177
Greece	76,539	60,738	72,815	63,213	80,313	48,384
Turkey (including Wallachia and Moldavia)	178,530	282,257	231,917	256,409	190,026	282,797
Egypt	195,214	380,594	299,560	396,705	337,754	358,790
United States of America	2,820,377	1,630,979	2,265,946	1,725,138	1,877,478	1,790,693
Mexico, Foreign West Indies, and Central America	248,473	294,821	239,832	304,498	246,310	290,877
Brazil	176,611	377,595	186,908	353,740	200,449	295,924
Peru	190,547	63,213	189,061	133,441	111,769	200,673
Chili	81,390	194,444	68,349	179,073	74,423	168,553
China	68,440	14,655	80,642	14,837	78,223	51,895
Other countries	389,651	478,105	376,157	476,014	393,541	455,078
Total, Foreign Countries	12,016,427	11,991,312	11,681,896	11,883,929	10,808,404	12,030,260
BRITISH POSSESSIONS.						
North American Colonies	1,013,514	669,584	772,574	563,209	782,755	688,907
East Indies, including Ceylon, Singapore, and Mauritius	778,215	983,628	716,358	854,111	754,307	793,992
Australia and New Zealand	218,791	418,943	223,840	331,741	192,204	271,123
West Indies	186,696	90,800	182,675	111,447	188,790	119,854
Channel Islands................	185,598	124,369	185,997	129,676	187,055	140,623
Other possessions	162,420	612,371	154,977	548,457	139,731	572,837
Total, British Possessions	2,545,234	2,899,695	2,236,421	2,538,641	2,244,842	2,587,336
TOTAL FOREIGN COUNTRIES AND BRITISH POSSESSIONS.						
Nine months ended September { 1874........	14,561,661	14,891,007	—	—	—	—
Nine months ended September { '73........	—	—	13,918,317	14,422,570	—	—
Nine months ended September { '72........	—	—	—	—	13,053,246	14,617,596

GOLD AND SILVER BULLION AND SPECIE.—IMPORTED AND EXPORTED.—(United Kingdom.)—*Computed Real Value for the* **Nine Months** (*January—September*), **1874-73-72.**

[000's omitted.]

(First Nine Months.)	1874.		1873.		1872.	
	Gold.	*Silver.*	Gold.	*Silver.*	Gold.	*Silver.*
Imported from:—	£	£	£	£	£	£
Australia	4,759,	16,	7,033,	16,	4,520,	15,
So. Amca. and W. Indies	2,002,	2,775,	2,061,	2,432,	585,	1,881,
United States and Cal.	3,216,	2,785,	3,127,	4,780,	7,189,	3,520,
	9,977,	5,576,	12,191,	7,228,	12,294,	5,416,
France........................	431,	893,	525,	1,020,	549,	546,
Germany, Holl. & Belg.	230,	1,834,	68,	189,	416,	2,363,
Prtgl., Spain, and Gbrltr.................	57,	50,	132,	61,	57,	44,
Mlta., Trky., and Egypt	265,	22,	1,401,	30,	84,	50,
China	232,	231,	56,	127,	—	62,
West Coast of Africa	106,	28,	59,	6,	81,	—
All other Countries....	1,058,	843,	239,	810,	193,	81,
Totals Imported....	12,356,	9,477,	14,671,	9,471,	13,674,	8,562,
Exported to:—						
France........................	3,426,	810,	532,	2,808,	972,	722,
Germany, Holl. & Belg.	1,015,	585,	6,375,	1,272,	5,377,	1,047,
Prtgl., Spain, and Gbrltr.................	811,	1,645,	3,210,	129,	1,248,	550,
	5,252,	3,040,	10,117,	4,209,	7,597,	2,319,
Ind. and China (viâ Egypt)................	1,331,	128,	1,013,	2,255,	825,	4,551,
Danish West Indies	—	—	—	—	—	—
United States	9,	24,	677,	2,	—	—
South Africa	5,	11,	214,	45,	1,036,	74,
Mauritius	—	—	—	—	—	—
Brazil	396,	—	207,	—	295,	—
All other Countries....	1,334,	5,719,	2,324,	1,381,	4,766,	921,
Totals Exported....	8,327,	8,922,	14,552,	7,892,	14,519,	7,865,
Excess of *Imports*....	4,029,	555,	119,	1,579,	—	697,
,, Exports....	—	—	—	—	845,	—

REVENUE.—(UNITED KINGDOM.)—30TH SEPTEMBER, 1874-73-72-71.

Net Produce in QUARTERS *and* YEARS *ended 30th* SEPT., 1874-73-72-71.

[000's omitted.]

QUARTERS, ended 30th Sept.	1874.	1873.	1874.		Corresponding Quarters.	
			Less.	More.	1872.	1871.
	£	£	£	£	£	£
Customs	4,572,	5,012,	440,	—	5,051,	4,964,
Excise	5,437,	5,499,	62,	—	5,365,	4,607,
Stamps	2,448,	2,606,	151,	—	2,258,	2,417,
Taxes	129,	90,	—	39,	81,	107,
Post Office	1,430,	1,872,	442,	—	1,200,	1,112,
Telegraph Service	300,	460,	160,	—	250,	255,
	14,316,	15,539,	1,262,	39,	14,205,	13,462,
Property Tax	349,	457,	108,	—	589,	608,
	14,665,	15,996,	1,370,	39,	14,794,	14,070,
Crown Lands	72,	70,	—	2,	70,	74,
Miscellaneous	1,244,	1,276,	31,	—	946,	870,
Totals	15,981,	17,342,	1,401,	41,	15,810,	15,014,
			NET DECR. £1,360.			

YEARS, ended 30th Sept.	1874.	1873.	1874.		Corresponding Years.	
			Less.	More.	1872.	1871.
	£	£	£	£	£	£
Customs	19,612,	20,900,	1,288,	—	20,626,	20,025,
Excise	27,153,	26,109,	—	—	24,719,	23,032,
Stamps	10,461,	10,415,	—	—	9,761,	9,419,
Taxes	2,414,	2,359,	—	90,	2,369,	2,324,
Post Office	5,520,	5,472,	—	—	4,838,	4,732,
Telegraph Service	1,250,	1,100,	—	40,	805,	685,
	66,410,	66,355,	1,288,	130,	63,118,	60,217,
Property Tax	5,486,	6,933,	1,447,	—	9,802,	6,487
	71,896,	73,288,	2,735,	130,	72,920,	66,704,
Crown Lands	380,	375,	—	5,	371,	384,
Miscellaneous	3,690,	3,766,	75,	—	3,771,	4,196,
Totals	75,966,	77,429,	2,810,	135,	77,062,	71,284,
			NET DECR. £2,675.			

REVENUE.—UNITED KINGDOM.—QUARTER ENDED 30TH SEPT., 1874:—

An Account showing the REVENUE *and other* RECEIPTS *in the* QUARTER *ended* 30*th September*, 1874; *the* ISSUES *out of the same, and the Charges on the Consolidated Fund at that Date, and the Surplus or Deficiency of the Balance in the Exchequer on the* 30*th of September*, 1874, *in respect of such Charges.*

Received:—

		£
Income received, as shown in Account I		15,981,594
Amount raised on Account of Fortifications, per Act 32 and 33 Vict., cap. 76		100,000
Ditto, Military Barracks, per Act 35 and 36 Vict., cap. 68		300,000
Amount received in Repayment of Advances for Public Works, &c.		363,715
,, for Greenwich Hospital		55,600
Total		£16,800,909
Excess of the sums charged on the Consolidated Fund on the 30th September 1874, payable in December quarter, 1874, above the Balance in the Exchequer at that date, viz.:—		
Excess of Charge in Great Britain	£3,541,847	
Surplus over Charge in Ireland	538,693	
Net deficiency		*3,003,154
		19,804,063

Paid:—

		£
Net deficiency of the balance in the Exchequer to meet the charge on the 30th of June, 1874, as per last account		1,408,763
Amount applied out of the Income to *Supply Services*		10,564,742
,, advanced for Greenwich Hospital		55,600
Charge of the *Consolidated Fund* on the 30th of September, 1874, viz.:—		
Interest of the Permanent Debt	£4,664,511	
Terminable Annuities	1,129,139	
Interest of Exchequer Bills	25,094	
Interest of Deficiency Advances	699	
The Civil List	101,390	
Other Charges on Consolidated Fund (including 100,000*l.* for Fortifications and 300,000*l.* for Military Barracks)	705,051	
Advances for Public Works, &c.	686,031	
Sinking Fund	463,043	
		7,774,958
Total		£19,804,063

---

* Charge on 30th September, 1874 (as above)	£7,774,958
Paid out of Growing Produce in September quarter, 1874	1,654,464
Portion of the Charge payable in December quarter, 1874	6,120,494
To meet which there was in the Exchequer on the 30th of September, 1874	3,117,340
Net Deficiency as above	3,003,154

BRITISH CORN.—*Gazette Average Prices* (ENGLAND AND WALES), *Third Quarter of* 1874.

[This Table is communicated by the Statistical and Corn Department, Board of Trade.]

Weeks ended on Saturday.	Weekly Average. (Per Impl. Quarter.)					
	Wheat.		Barley.		Oats.	
1874.	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
July 4	60	8	41	11	30	10
„ 11	60	9	41	7	29	11
„ 18	60	10	39	6	31	2
„ 25	60	5	40	1	29	8
Average for July	60	8	40	9	30	4
August 1	59	8	46	1	30	9
„ 8	58	6	39	1	30	8
„ 15	58	–	45	–	30	6
„ 22	57	2	46	5	32	–
„ 29	54	6	45	11	30	4
Average for August	57	6	44	6	30	10
September 5	49	9	44	–	29	2
„ 12	47	2	43	2	28	6
„ 19	46	8	42	5	27	2
„ 26	46	9	41	11	27	9
Average for September	47	7	42	10	28	1
Average for the quarter	55	5	42	10	29	10

BANK OF ENGLAND.—WEEKLY RETURN.

Pursuant to the Act 7th and 8th Victoria, c. 32 (1844), *for Wednesday in each Week, during the* THIRD QUARTER (*July—September*) *of* 1874.

[0,000's omitted.]

1	2	3	4	5	6	7	
ISSUE DEPARTMENT.					COLLATERAL COLUMNS.		
Liabilities.		Assets.					
Notes Issued.	DATES. (Wednesdays.)	Government Debt.	Other Securities.	Gold Coin and Bullion.	Notes in Hands of Public. (Col. 1 minus col. 16.)	Minimum Rates of Discount at Bank of England.	
£ Mlns.	1874.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	1874.	Per cnt.
38,22	July 1	11,06	3,98	23,24	27,09	17 June	2½
37,45	„ 8	11,06	3,98	22,45	27,28		
37,29	„ 15	11,06	3,98	22,29	27,22		
37,28	„ 22	11,06	3,98	22,28	26,95		
36,70	„ 29	11,06	3,98	21,70	25,70	30 July	3
35,84	Aug. 5	11,06	3,98	20,84	27,33	6 Aug.	4
36,12	„ 12	11,06	3,98	21,12	26,96		
36,81	„ 19	11,06	3,98	21,81	25,49	20 „	3½
37,27	„ 26	11,06	3,98	22,27	26,34	27 „	3
37,26	Sept. 2	11,06	3,98	22,26	26,82		
37,37	„ 9	11,06	3,98	22,37	26,50		
37,55	„ 16	11,06	3,98	22,55	26,24		
37,53	„ 23	11,06	3,98	22,53	26,02		
37,39	„ 30	11,06	3,98	22,39	27,28		

BANKING DEPARTMENT.

8	9	10	11	12	13	14	15	16	17	18
Liabilities.					DATES. (Wdnsdys.)	Assets.				Totals of Liabilities and Assets.
Capital and Rest.		Deposits.		Seven Day and other Bills.		Securities.		Reserve.		
Capital.	Rest.	Public.	Private.			Government.	Other.	Notes.	Gold and Silver Coin.	
£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	1874.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.	£ Mlns.
14,55	3,21	9,71	20,16	,36	July 1	13,60	22,55	11,13	,70	47,98
14,55	3,35	5,43	19,96	,37	„ 8	14,21	18,47	10,17	,81	43,66
14,55	3,39	5,83	10,93	,39	„ 15	14,23	17,02	10,07	,76	42,08
14,55	3,39	3,62	19,75	,35	„ 22	14,03	16,40	10,33	,91	41,67
14,55	3,41	3,32	19,31	,37	„ 29	13,63	16,55	10,00	,77	40,95
14,55	3,43	3,24	18,80	,38	Aug. 5	13,59	17,60	8,51	,70	40,40
14,55	3,43	3,86	18,60	,40	„ 12	13,59	17,35	9,16	,74	40,84
14,55	3,46	3,25	18,86	,41	„ 19	13,59	16,88	10,32	,73	41,52
14,55	3,42	4,33	19,52	,39	„ 26	13,59	16,88	10,93	,81	42,21
14,55	3,73	4,63	19,00	,41	Sept. 2	13,57	17,60	10,44	,72	42,33
14,55	3,74	4,75	18,87	,39	„ 9	17,53	17,03	10,87	,87	42,30
14,55	3,74	5,05	18,90	,39	„ 16	13,53	16,98	11,31	,81	42,63
14,55	3,76	5,72	18,37	,41	„ 23	13,53	17,01	11,51	,78	42,83
14,55	3,75	5,21	19,63	,39	„ 30	13,53	19,19	10,11	,70	43,53

LONDON CLEARING; CIRCULATION, PRIVATE AND PROVINCIAL.

The London Clearing, and the Average Amount of Promissory Notes in Circulation in ENGLAND *and* WALES *on Saturday in each Week during the* THIRD QUARTER (*July—September*) *of* 1874; *and in* SCOTLAND *and* IRELAND, *at the Three Dates, as under.*

[0,000's omitted.]

ENGLAND AND WALES.					SCOTLAND.				IRELAND.		
DATES. *Saturday.*	*London:* Cleared in each Week ended *Wednesday.**	Private Banks. (Fixed Issues, 3,93).	Joint Stock Banks. (Fixed Issues, 2,74).	TOTAL. (Fixed Issues, 6,66).	Weeks ended	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 2,75).	£5 and upwards.	Under £5.	TOTAL. (Fixed Issues, 6,35).
1874.	£	£	£	£	1874.	£	£	£	£	£	£
July 4	134,43	2,49	2,27	4,76							
„ 11	1,16	2,53	2,28	4,82	July 11	1,97	3,85	5,82	3,49	2,71	6,20
„ 18	111,83	2,49	2,28	4,77							
„ 25	135,60	2,48	2,25	4,73							
Aug. 1	89,55	2,45	2,23	4,69							
„ 8	126,02	2,46	2,23	4,69	Aug. 8	1,91	3,82	5,73	3,40	2,69	6,09
„ 15	99,00	2,41	2,21	4,63							
„ 22	126,91	2,38	2,21	4,60							
„ 29	80,24	2,39	2,21	4,61							
Sept. 5	126,17	2,45	2,24	4,69	Sept. 5	1,87	3,82	5,69	3,34	2,74	6,08
„ 12	98,65	2,47	2,28	4,76							
„ 19	128,69	2,50	2,31	4,82							
„ 26	102,12	2,56	2,34	4,99							

* The Wednesdays *preceding* the Saturdays.

FOREIGN EXCHANGES.—*Quotations as under,* LONDON *on Paris, Hamburg and Calcutta;—and New York, Calcutta, Hong Kong and Sydney, on* LONDON.

1	2	3	4	5	6	7	8	9
				Calcutta.				
DATES.	London on Paris. 3 m.d.	London on Hamburg. 3 m.d.	New York. 60 d. s.	India Council.* 60 d. s.	At Calcutta on London. 6 m. d.	Hong Kong. 6 m. d.	Sydney. 30 d. s.	Standard *Silver* in bars in London pr. oz.
1874.			per. cnt.	*d.*	*d.*	*d.*	per cnt.	*d.*
July 4	25·45	20·57	4·88¼	22⅛	22⅝	—	—	58⅝
„ 18	25·50	20·56	4·87½	—	22⅝	—	—	58½
Aug. 1	25·47½	20·62	4·87½	22	22$\frac{1}{16}$	50	—	58¼
„ 15	25·55	20·73	4·87½	21⅞	—	50	—	57⅞
Sept. 5	25·55	20·68	—	—	—	—	—	58
„ 19	25·50	20·71	4·84½	22	22¼	49⅞	½ dis.	57¾

* Bankers' drafts.

ADDITIONS TO THE LIBRARY DURING THE QUARTER ENDED 31st DECEMBER, 1874.

Donations.	By whom Presented.
Return of Majors of Artillery who, having entered the Indian Service previous to the Amalgamation, have Retired on Full Pay since the 5th July, 1872. No. 377	India Office
Army and Navy Appointments. No. 281	"
Copies of all Despatches received at, or sent from, the India Office, in reference to the recent Riots at Bombay. No. 305.	"
Further Reports on the East African Slave Trade. No. 7 and 8, to 31st December, 1873	"
Reports on Trade Routes and Fairs on the Northern Frontiers of India	"
General Report on Public Instruction in Bengal, for 1872-73, with Appendix	"
Nomenclature of Diseases, prepared for the use of the Medical Officers of the United States Marine-Hospital Service by the Supervising Surgeon, John M. Woodworth, Esq., M.D., Washington	The Author
Statistical Tables of the Patients under Treatment in the Wards of St. Bartholomew's Hospital during 1873. By W. Ainslie Hollis, M.D., and Henry T. Butlin, F.R.C.S., and Edward Milner, M.R.C.S.	The Hospital
Recueil de Données Statistiques sur les Chemins de Fer en Russie au 1er Janvier 1874 (avec une carte)	M. de Bouschen
Reports of the Inspectors of Factories, to 30th April, 1874 (c. 1,086)	A. Redgrave, Esq.
Statistical Abstract for the Several Colonial and other Possessions of the United Kingdom in each Year, from 1858 to 1872	R. Valpy, Esq.
Statistical Abstract for the Principal Foreign Countries in each Year, from 1860 to 1872	"
Quarterly Return of the Marriages, Births, and Deaths in Ireland. Dublin, 1874	Registrar-General, Dublin
Report of the Action for Libel brought by the Rev. Robert O'Keeffe, P.P., against his Eminence Cardinal Cullen; with an Introduction by Henry Clare Kirkpatrick, Barrister-at-Law. 1874	Messrs. Longmans & Co.
Norges Officielle Statistik udgiven i Aaret, 1873—	
Oversigt over Sindssygeasylernes Virksomhed i Aaret 1872. Christiania	Departmentet for det Indre Christiania
Beretning om Sundhedstilstanden og Medicinalforholdene i Norge, i Aaret 1871. Christiania Tabeller vedkommende Norges Skibsfart i Aaret, 1872 Christiania	"
Tabeller vedkommende Norges Handel i Aaret 1872. Christiania	"
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Beretning om Skolevæsenets Tilstand i Kongeriget Norges Landdistrikt for Aaret 1871	”
Bidrag till Sveriges Officiela Statistik—	”
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Rättsväsendet 1870 ii, 1871 ii, 1872 i	”
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Landtmäteriet, 1872-73	”
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I Allmänna Arbeten, 1872	”
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Riks-Stat för år 1874	”
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Annual Statement of the Trade of the United Kingdom with Foreign Countries and British Possessions for 1873	Board of Trade
Annual Statement of the Navigation and Shipping of the United Kingdom for the Year 1873. Parts I, II, III	,,
Statistisches Jahrbuch für das Jahr 1872. V.—VII.—XI Heft. Wien, 1874	K. K. Statistische Central Commission
Statistisches Jahrbuch für das Jahr 1873. I Heft. Wien, 1874	,,
Mettheilungen aus dem Gebiete der Statistik Herausgegeben. Zwanzigster Jahrgang IV und V Heft. Wien, 1874	,,
Der Bergwerks-Betrieb Oesterreichs im Jahre, 1873. I Theil (Tabellen)	,,
Official Correspondence on the Italian Question, by the Earl of Malmesbury	Dr. Guy, F.R.S.
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Medico-Chirurgical Transactions. Published by the Royal Medical and Chirurgical Society of London. Vol. lvii	The Society
Twenty-first Report of the Charity Commissioners for England and Wales, 1873	Charity Commissioners
Cover for the "Review"	The Proprietors
Publication of the Surtees Society. Vol. lx. Durham	The Society
Relazioni dei Giurati Italiani, sulla Esposizione Universale di Vienna, del 1873. Fascicoli i, ii, iii, iv, and vi, vii and viii. Milano	Il Ministero d'Agricoltura, Industria e Commercio, Roma

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Navigazione nei Porti del Regno. Anno 1872	”
Statistica delle Carceri. Per l'Anno 1872	”
Trade Statistics of the Treaty Ports for the Period 1863-72. Shanghai	J. Duncan Campbell, Esq., Chinese Customs Service
Port Catalogues of the Chinese Customs Collection at the Vienna Exhibition of 1873	”
On the Relative Proportion of the Sexes. By William E. A. Axon, F.S.S., M.R.S.L.	The Author
Report of the Registrar of Friendly Societies in England, for the Year ending December, 1872	The Registrar of Friendly Societies
Faits Commerciaux. No. 80. Situation Économique et Commerciale de la France. No. 1961	M. Eugène Minot
Howard Association Report. September, 1874	The Association
Hospital Expenditure, or Cost of Maintenance in the Various London Hospitals, with Analytical Tables of Current Expenditure. By Charles Hood, F.R.S., &c.	National Association for the Promotion of Social Science
School Board Work in Manchester. A Paper read at the Social Science Congress, Glasgow. By John A. Bremner, Esq., F.S.S.	The Author
Statistisches Jahrbuch für Ungarn verfasst und herausgegeben durch das Kön. Ung. Statistische Bureau. Budapest, 1874	Bureau de Statistique Royal Hongrois
Tenth Annual Report of the Board of State Charities of Massachusetts. January, 1874. Boston	Massachusetts Board of State Charities
Transactions and Proceedings of the Royal Society of Victoria. Vol. x	The Society
The Calendar of King's College, London, for 1874-75	The College
Statistics of the Colony of Tasmania, for the Year 1873	The Legislative Council, Tasmania
Report Army Medical Department for the Year 1872. Vol. xiv	War Office
Correspondence relative to the Question of the Suez Canal Dues, together with the Procès-Verbaux of the Meetings held by the International Commission at Constantinople	India Office
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Report on the Census of the Madras Presidency, 1871, with Appendix. By W. R. Cornish, F.R.C.S., Surgeon-Major. Madras	The Author
Supplementary Tables of the Census Results of the Madras Presidency, for 1871. By W. R. Cornish, F.R.C.S., Surgeon-Major. Madras	"
Transactions of the Manchester Statistical Society, Session 1873-74	The Society
The Bankers' Magazine and Statistical Register. New York, October, 1874	The Editor
Circulars of Information of the Bureau of Education. Nos. 1 and 2. 1874	U. S. Bureau of Education, Washington
Proceedings of the Institution of Civil Engineers. Vols. xxxvii and xxxviii, 1873-74	The Institution
De Muntquaestie met betrekking tot indie door. N. P. Van Der Berg, President Van de Tavasche Bank. Batavia, 1874	The Author
Seeschiffahrtsverkehr zu Altona im Jahre, 1873	Statistisches Bureau der Stadt Altona
Library Catalogue of the Institution of Surveyors. Corrected to Sept., 1874	The Institution
The Children in the Industrial Homes. Naples, 1874	Anonymous
Taylor's Calendar of the Meetings of the Scientific Bodies of London, for 1874-75	Taylor and Francis
Royal Medical and Chirurgical Society. Additions to the Library. No. 17. 1873-74	The Society
The Marriage Law of England. By J. T. Hammick, Esq., Barrister-at-Law, &c.	The Author
Railways in the United Kingdom, Compared as to their Cost, Traffic, and Working, for the Years 1872-73. By J. A. Baynes, Esq.	"
Indian Railways. Comparative Statement of Construction, Cost, Receipts, Working Charges, and Net Earnings, for the Year 1873. By J. A. Baynes, Esq. Sheet	"
Statistique de la France. Nouvelle Série. Statistique Annuelle. Tome 1er, Année 1871. Paris, 1874	Foreign Office
Abstract of Local Taxation Returns, for the Year 1872-73. England	F. Purdy, Esq.
Statistics of Australasian Colonies, showing the Relative Positions and Aggregate Importance of the Australasian Colonies at the Close of 1873. No. 21. South Australia (50 copies)	J. Boothby, Esq., Adelaide, South Australia
Hivatalos Statistikai Közlemények, kiadja az országos Magyar Kir. Statistikai Hivatal. VII Evfolyam, III, IV, Füzet	M. Chas. Keleti, le Chef du Bureau de Statistique Royal Hongrois, Budapest
The Athenæum. Parts 560 to 563	The Editor
The Revue Bibliographique Universelle, for September, October, and November, 1874. Paris, 1874	"

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The Banker's Magazine. Nos. 366 to 369. London, 1874	The Editor
Journal of the Institute of Actuaries. Parts 3 and 4, vol. xviii. London, 1874	The Institute
Transactions of the Institution of Surveyors. Part 1, vol. vii. London, 1874	The Institution
Revista de Portugal e Brazil. Nos. 9 to 11, vol. ii. Brazil	The Directors
Proceedings of the Royal Geographical Society. Nos. 4 and 5, vol. xviii. London, 1874	The Society
Proceedings of the Asiatic Society of Bengal. Nos. 6 and 7	"
Journal of the Asiatic Society of Bengal. Part 1, No. 2	"
Journal of the Royal United Service Institution. No. 78, vol. xviii. London, 1874	The Institution
Journal of the East India Association. Vol. viii. London	The Association
Journal de Statistique Suisse. Dixième année, 3 quartal-heft. Bern, 1874	The Editor
Proceedings of the Royal Institution. Parts 3 and 4, vol. vii. London	The Institution
Journal of the Royal Agricultural Society. Part 2, No. 20. London, 1874	The Society
Trade and Navigation Accounts, for September, October, and November, 1874. London, 1874	Board of Trade
Italian Statistical Tables of Florence. Nos. 33 to 36	Giunta Communale de Statisticia
Sessional Proceedings of the National Association for the Promotion of Social Science. Nos. 1 and 2, vol viii. London, 1874	The Association
Returns of Births and Deaths in Ireland	Registrar-General
Returns of Births, Deaths, and Marriages in Scotland	"
The Review (weekly)	The Editor
Journal of the Society of Arts	"
Insurances Record (weekly)	"
Nature (weekly)	
Iron (two copies)	"
The Sanitary Record	"
Monetary and Mining Gazette (weekly)	"
Italian Meteorological Returns for May and June. Rome, 1874	The Minister of Agriculture, Industry, and Commerce, Rome
Reports of the Registrar of Friendly Societies in England, for the Year ended 31st December, 1873. No. 355. London, 1874	The Registrar of Friendly Societies
Statistisches Handbüchlein, der kgl Hauptstadt. Prag, für das Jahr 1872 und 1873 (2 copies)	A la Commission de Statistique de la Ville Capitale de Prague
The Bank of England Note Issue and its Error. By Ernest Seyd, F.S.S. London, 1874 (a large mounted Diagram)	The Author

Donations—Contd.

Donations.	By whom Presented.
Summary of Statistics of Railways in the United Kingdom, for the Years 1863-69-70-71-72-73. Compiled from the Returns of the Board of Trade. 1874	W. T. Dent, Esq.

Purchased.

Annuaire de l'Economie Politique et de la Statistique. Par MM. Guillaumin, Joseph Garnier, M. Block.

Journal des Economistes.

Annales d'Hygiène Publique.

The Economist.

Haydn's Dictionary of Dates, and Universal Information Relating to all Ages and Nations. By Benjamin Vincent. 14th Edition.

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AN OUTLINE OF THE OBJECTS OF THE SOCIETY.

THE *Statistical Society* of London was founded, in pursuance of a recommendation of the British Association for the Advancement of Science, on the 15th of March, 1834, for the purpose of collecting, arranging, and publishing facts calculated to illustrate the position and prospects of Society, and especially facts which can be stated numerically and arranged in tables. The collection of new statistical materials, it was contemplated, would form only one part of the Society's labours; the condensation, arrangement, and publication of those already existing, whether unpublished, or published only in an expensive or diffuse form, or in foreign languages, being a work of almost equal usefulness.

It was also a prominent object of the Society to form a complete Statistical Library as rapidly as its funds would permit.

Such were the original aims and objects of the Society; and now that it is in the *fortieth* year of a prosperous existence, its Fellows have every reason to revert to them with satisfaction; for it is seldom that the first designs of a public association for the advancement of Science are carried out with a success so complete as has been achieved in this instance.

WHAT IT HAS DONE.—The Society now possesses a valuable library and a reading room; its ordinary meetings, held monthly from November to June, have cultivated among its Fellows an active spirit of investigation, and brought out the valuable results of much individual labour; its Quarterly *Journal*, in which the papers read before the Fellows are printed *in extenso*, with the discussions thereon, forms of itself a valuable library of reference.

The Society has originated and statistically conducted several inquiries on subjects of economic or social interest. The most recent work of the kind relates to the complicated question of local taxation in England. The instructive Prize Essays of Mr. R. H. Inglis Palgrave and Mr. Scott on that question will be found in the Society's *Journal* for 1871.

OBJECTS OF THE SOCIETY.

WHAT IT PROPOSES TO DO.—The present is deemed a favourable moment for reconsidering the scientific work of the Society, so far as it depends on the frequency and scope of its ordinary meetings, and the extent and character of its library and published Transactions.

At the recent International Statistical Congress in St. Petersburg, a permanent commission was appointed to watch over the progress of statistical research; so that the results of the deliberations which take place at those gatherings may, in their international aspects, be as far as possible utilised during the interval of consecutive meetings. To that important work the Fellows and Members of this Society can afford material aid.

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